

Abstracts from the 9th Annual Meeting of the Euro-Asian Bridge

September 28-30, 2012
Pravets, Bulgaria

PLENARY SESSIONS I: GREAT VESSELS

Moderators: Prof. Stuart Jameson, Prof. Tomas Salerno

GV1.

SURGICAL TREATMENT OF MASSIVE PULMONARY EMBOLISM

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Acute pulmonary embolism (APE) is a life-threatening disease which often results in death if not diagnosed early and treated aggressively. There is no consensus as to the management of APE severe PE.

Methods: From May 2000 to September 2012, 19 consecutive patients underwent surgical pulmonary embolectomy at our institution. Mean age was 45 ± 17 years (range, 14 to 76) with 12 (63%) males and seven (37%) females. Preoperatively, all cases were classified as massive PE; seven (37%) patients were in hemodynamic collapse and emergently underwent operation while receiving cardiopulmonary resuscitation.

Results: There were nine (56%) urgent/emergent and seven (44%) salvage patients undergoing surgical pulmonary embolectomy. Of nine non-salvage patients, seven (77%) patients presented with moderate to severe right ventricular (RV) dilation/dysfunction. Mean cardiopulmonary bypass time was 43 ± 11 minutes (range, 11 to 161). Mean follow-up duration was 48 ± 38 months (range: 0.3 to 109), with seven in-hospital deaths (37%); mortality was 8.3% (1/12) in emergent operations and 86% (6/7) in salvage operations.

Conclusions: Surgical pulmonary embolectomy should be considered early in the management of hemodynamically stable patients with PE who show evidence of RV dilation and/or failure, as it is associated with satisfactory outcomes.

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Conversely, pulmonary embolectomy has dismal results under salvage conditions. Revision of current guidelines for the surgical management of this condition may be warranted.

GV2.

ARE CT ANGIO AND AUTOPSY COMPATIBLE METHODS FOR EXAMINATION OF WILLIS CIRCLE VARIATIONS, IMPORTANT FOR CEREBRAL PROTECTION IN AORTIC SURGERY?†

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Objectives: Some variations of the circle of Willis (CoW) could lead to hypoperfusion during unilateral selective cerebral perfusion (uSCP). The aim of present study was to compare results, obtained via CT angio and routine dissection.

Methods: Group 1 includes 120 CoWs, examined with CT-angio from January, 2008 to March, 2012. Group 2 includes 120 CoW, obtained via routine dissection for medico-legal reasons from May, 2005 to March, 2012. In each group 60 CoWs were from patients with history of neurological dysfunction. The results for both groups were compared, using SPSS.

Results: In both groups seven evident configurations of CoW that could cause hypoperfusion during uSCP were found namely:

- Type IA – hypo/aplasia of left posterior communicating artery (PCoMA);
- Type IB – hypo/aplasia of anterior communicating artery (ACoMA);
- Type IIA – hypo/aplasia of both left PCoMA and ACoMA;
- Type IIB – hypo/aplasia of left P1 or right vertebral

artery (VA);

- Type IIIA – hypo/aplasia of right A1;
- Type IIIB – hypo/aplasia of both right VA and AComA;
- Type IV – hypo/aplasia of both right A1 and right VA or both right A1 and left P1;

No statistic significant difference in overall frequency of CoW variations was found between groups ($P>0.05$). No statistic significant difference in frequency of CoW variations was found between genders ($P>0.05$). No statistic significant difference in frequency of 7 CoW types was found between groups ($P>0.05$). Patients with history of neurological dysfunction had significantly higher frequency of CoW variations ($P<0.001$).

Conclusions: Our present study shows that results obtained from both CT angio and autopsy are similar and could be compared. We also showed that patients with history of neurological dysfunction have higher frequency of CoW variations. Our present study supports the need of extensive preoperative examination and meticulous intraoperative monitoring of cerebral perfusion during uSCP.

GV3.

RETROGRADE CEREBRAL PERFUSION WITH DEEP HYPOTHERMIA – METHOD OF BRAIN PROTECTION IN SURGERY OF ASCENDING AORTA AND ARCH ANEURYSMS.

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Background: Surgical correction of aortic arch aneurysms (AAA) remains difficult task.

Aim To present efficiency of brain protection by retrograde cerebral perfusion (RCP) in surgical treatment of AAA.

Materials and Methods: 156 patients with AAA were operated on during 1980 - 2011 (129 (82,7%) males, 27 (17,3%) females). Their age ranged 27 - 76 years, mean $52,4\pm6,8$. Acute dissection was in 147 (94,2%), chronic - in 5 (3,2%), without dissection - 4 (2,6%) pts.

Operations were fulfilled with heart-lung bypass, deep hypothermia and RCP through superior vena cava (SVC). Femoral artery was utilized for arterial cannulation.

The following **Methods** were used for correction:

- supracoronary grafting of ascending aorta with hemiarch - 112 (71,8%);
- Bentall's operation - 34 (21,8%);
- isolated arch grafting - 6 (3,8%);
- Wheat operation with arch grafting - 3 (1,9%);
- aortic arch plasty - 1 (0,6%).

Results: Thirty day mortality - 26 (16,7%) patients.

Group I (1994-2001) - 25 operations with deep hypothermia (16-18°C), perfusion blood flow - 500-750 ml/min/m², pressure in SVC - 15-25 mmHg. Mortality - 7 (28%) pts., in 2 cases the cerebral complications were the cause of death.

Group II - 63 operations fulfilled in 2002-2007 yy. with deep hypothermia (12,5-14°C), blood flow rate - 250-500 ml/min/m², pressure in SVC - 10-12 mmHg. Mortality - 11 (17,4%) pts. Pulmonary complications were in 5 cases, 3 (4,8%) of them died. Lethal brain injury has 1 pts (1,6%).

Group III - 68 operations fulfilled in 2008-2011 yy. with deep hypothermia (18-20°C), blood flow rate - 250-500 ml/min/m², pressure in SVC - 10-12 mmHg. Perfusion through femoral artery during the retrograde stage was maintained permanently in group II and III. Mortality - 8 (11,7%) pts.

Pulmonary complications was lethal in 1 (1,5%) patient and brain lesion - 1 (1,5%) pts (1,6%).

Remute results were studied in 124 (95,4%) pts (term 6 month - 16 years, mean $4,5\pm2,8$ years). Good results were in 85 (68,5%) pts, satisfactory - 20 (16,1%), unsatisfactory - 9 (7,3%); 10 (8,1%) patients died.

Conclusion. Retrograde cerebral perfusion with deep hypothermia (18-20°C), pressure in SVC - 10-12 mmHg, blood flow rate - 250-500 ml/min/m² with continually perfusion through femoral artery is safe **Method** of brain protection during AAA correction.

GV4.

SURGERY OF THE ASCENDING AORTA AND AORTIC ARCH IN ALBANIA

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Background: Treatment of aneurysms of the ascending aorta, arch aorta, or both is surgically challenging and has traditionally carried a high hospital mortality rate. The use of refined operative techniques has resulted in reduced hospital mortality rates. In the last few years this kind of surgery was applied at our clinic in Albania and we thought it would be very useful to have a study of this group of patients.

Methods: We conducted a prospective analysis of consecutive patients who underwent 29 procedures between January 2011 and June 2012, for graft replacement of the ascending or transverse aortic arch. There were 21 men (72.4%) and 8 women (27.6%). The mean age was $57,14\pm9,2$ years (range 40 - 68). Aortic abnormalities were medial degeneration in 18 patients (62%) and bicuspid aortic pathology in 11 patients (38%). Five patients (17.24%) were operated on an emergency basis for acute aortic dissection. Most of the patients were diagnosed to have an aneurysm because of the aortic valve pathology related symptoms.

Results: The ascending aorta was replaced in all 29 patients (100%) and ascending and arch aorta in 5 patients (17.24%). Fifteen patients (51.72%) required aortic valve replacement, 1 patient (3.44%) had aortic valve reconstruction and 7 patients (24.13%) received a valve conduit. Concomitant bypass grafting was performed in two patients. Mean cross-clamp and bypass time were 117.69 ± 41.18 and

147.76±54.00 respectively. Overall hospital mortality rate was 3.44% (1 of 29 patients). Postoperative complications included atrial fibrillation in 5 patients, pulmonary insufficiency in 3 patients, pericardial effusion in 3 patients, cerebral edema in one patient, mediastinitis in one patient and complete av block in two patients.

Conclusions: Although in a small number of patients, surgery of the ascending aorta and aortic arch can be performed with low morbidity and mortality rates at our clinic in Albania.

GV5.

RECONSTRUCTIVE SURGERY FOR AORTIC DISEASE

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Objective: Aortic valve-reconstructive surgery include an armamentarium of procedures, which preserve the aortic cusps in aortic root dilation with aortic insufficiency. The purpose of this trial is to specifically outline the surgical indications, to describe the various techniques, and to present results from the most current series in aortic valve reconstructive operations.

Methods: During last 12 years we've done aortic reconstructive surgery in 425 patients, 90 of them had been with normal root, 298 of them with aortic dissection and 127 with aortic aneurysm. The diagnosis was established on history data and confirmed by transoesophageal as well as 64 MSCT scan diagnostic.

Results: Tyrone David procedure was performed in 72pts with aortic dissection, and in 64 with aneurysm, suspension of the aortic annulus was performed in 94pts with dissection and in 97 with aneurysm, and reinforcement of the free margin of the semi lunar leaflet was performed in 60pts with prolapsed leaflet, in 20 with dissection and in 18 with aortic aneurysm. Control transoesophageal echo showed regression of the aortic regurgitation from +3 on +1 in 98 % only 34 pts (8%) had residua +2. Mortality rate was 4,5% (19pts) Follow up period 2-120months.

Conclusion: aortic valve reconstructive operations are an excellent option for patients with an aortic root aneurysm and normal/minimally diseased aortic cusps.

GV6.

EXPERIENCE OF AORTIC ANEURYSMS SURGICAL TREATMENT IN PATIENT WITH MARFANE SYNDROME

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Background. Aortic root grafting and valve replacement in patients with Marfane syndrome may prevent premature death from aneurysm rupture or aortic dissection.

Aim. To present many years experience of aortic aneurysms (AA) surgical treatment in patients with Marfane syndrome.

Materials and Methods. 204 patients (aged 7 – 57 years, mean 30,6±6,8 years) with Marfane syndrome were operated on in the Institute during 1980 - 2011. There were 159 (77,9%) males and 45 (22,1%) females. Diagnosis of Marfane syndrome was established according to Gent nosology. Diagnosis AA based on the X-ray end Echo data, CT and aortografia.

Aneurysm diameter over 6,0 cm was in 145 (71,1%). Observed degree of aortic insufficiency: trivial – in 8 (3,9%), moderate – in 12 (5,9%), severe – in 184 (90,2%).

The following **Methods** were used for surgical treatment of AA: Bentall's operation – in 179 (87,7%) cases; supracoronary replacement – in 8 (3,9%); Robicsek operation – in 7 (3,4%); abdominal aorta grafting – in 4 (2,0%). Six patients (3,0%) did not have AA, they had severe mitral regurgitation and obtained mitral valve replacement.

Results. Hospital mortality composed 11,3% (23pts). Death causes: hemorrhage – 8 (3,9%) cases, acute heart failure – in 5 (2,4%); cerebral complications – in 4 (2,0%), acute renal failure – 3 (1,5%), others reasons – 3 (1,5%).

Remote results were studied in 170 (93,9%) patients in terms 6 months – 27 years, mean 61 month. Good remote result were found in 110 (64,7%), satisfactory – in 27 (15,9%), unsatisfactory – in 11 (6,5%) pts; 22 (12,9%) patients died. Causes of unsatisfactory remote results: residual aorta dissection – 3 (1,8%) cases, myocardial failure – in 3 (1,8%), prosthetic endocarditis – 5 (2,9%).

Redo operations were performed in 9 (5,3%) pts, in 2 (1,2%) of them because new formed abdominal aorta aneurysm, in 5 (2,9%) – prosthetic endocarditis, in 2 (1,2%) – on the reason of concomitant mitral regurgitation. Actuarial survival was 96% till the 5th year and 92% to the 10th year postoperatively.

Conclusion. AA in patients with Marfane syndrome appear in young age. Patients death causes: rupture\dissection or heart failure. Operation of choice is Bentall's procedure. Operated on patients require the whole life observation.

GV7.

AORTIC VALVE SPARING SURGERY IN MARFAN SYNDROME PATIENTS

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Objective: Marfan syndrome patients are referred for cardiac surgery due to root aneurysm with or without aortic valve (AV) regurgitation. Because these are young patients frequently presenting with normal appearing aortic cusps, valve sparing is often recommended. However, due to the genetic nature of the disease, the durability of such surgery remains uncertain. We compared our mid- to long-term experience with valve sparing surgery in both Marfan and non-Marfan syndrome patients.

Methods: From January 2004, 54 patients with Marfan syndrome underwent surgery in our department, of whom 27 underwent AV sparing surgery. We compared the early and late clinical outcomes to a group of 89 non-Marfan patients who had undergone surgery at the same time period. Marfan patients were significantly younger (33 ± 13 vs 56 ± 16 years), and had a higher percentage of root aneurysm, compared to ascending aorta aneurysm in the non-Marfan group. More patients in the non-Marfan group presented with acute aortic dissection ($p=0.023$).

Results: There was 1 early death in the Marfan group and 2 in the non-Marfan group ($p=NS$). There was no significant difference in other early major complications, which were few in both groups. At follow-up (ranging up to 8 years with a mean of 34 ± 25 months), there were no late deaths in the Marfan group and 8 (9%) in the non-Marfan group. Ninety-three percent and 78% of the patients were in NYHA functional class I-II in the Marfan and non-Marfan groups respectively. 1 Marfan and 3 non-Marfan patients required re-operation during follow-up. Freedom from recurrent AR $>3+$ was 92% in both groups.

Conclusions: AV sparing surgery in Marfan syndrome patients is safe and produces good mid- to long-term clinical outcomes in this group of patients.

GV8.

AORTIC ROOT RECONSTRUCTIVE SURGERY- NEW CREATED TECHNIQUE

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Objective: The native aortic valve can be explained with rules of the equal side triangle, and as a part of the aortic root it is wedged between the heart and the ascending aorta. Beside different types of aortic valve replacements, reconstructive techniques are increasingly performed to restore normal aortic valve function. Reconstructive techniques

themselves can be divided into isolated reconstruction of aortic valve/root structures and the isolated replacement of one or more structures with this study we evaluated clinical results of reconstructive surgery of the aortic root with 3 leaflets pericardial patch.

Methods: We created this reconstructive technique using bovine/equine pericardium, replacing valve cusps on aortic fibrous ring of patient. The leaflets are made from same pericardium from which other biologic valve prosthesis are done. The ring of patient's aorta was used as guide for sizing this valve. Leaflets are implanted separately; using continuous sutures with 2 supported stitches at newly created commissurae, without a stent or sowing ring. Main including criteria was stenosis of the aortic valve and patients with aortic annuli ring dilatation had been excluded. Intraoperative and postoperative TEE was performed for every created valve.

Results: 178pts with aortic valvular disease had been included in study. 146 of them got bovine and 31 equine pericardium created leaflets. Middle aorta cross clamping time was 71min, and bypass time 112min. 4 patients got aorto-coronary bypass in combination (2.3grafts per pts) 1 patient developed middle aortic regurgitation. Mortality rate was 4.4% (8pts). Follow up period 1-120 months.

Conclusions: Aortic root reconstructive surgery ensures hemodynamic improvement with a small transvalvular gradient in pts. It can be implanted even in patients with small root or with bicuspid valve, with good clinical outcome.

GV9.

FULL LEFT SIDE PERICARDIAL AGENESIS PREVENTING CARDIAC TAMPONADE IN CASE OF TYPE I AORTIC DISSECTION

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Objective: We describe a case of aortic dissection with full left side pericardial agenesis. The Communication between pericardium and left pleural cavity prevents cardiac tamponade.

Methods: A 64 year old lady presents with acute onset of chest pain, which then migrates to the upper back and jaws. The ECG was normal, and the chest x-ray shows massive left side pleural effusion, and mediastinal dilatation. The transthoracic echocardiography showed dilated ascending aorta with intimal flap, moderate aortic insufficiency and stenosis, minimal pericardial effusion and massive left pleural effusion. The contrast CT scan verified the diagnosis of type I aortic dissection. The patient was prepared for emergent surgery. For arterial cannulation we used the left common femoral artery and after that we performed a sternotomy. There was huge dilatation of ascending aorta with maximal diameter of 8 sm., small pericardial effusion, full left side pericardial agenesis with communication between the pericardium and left pleura, massive left side hemothorax and relaxation of left hemidiaphragm due to absence of left phrenic nerve. After cannulation of RA with two stage cannula we

started CPB, we used a left vent in RUPV. We cooled the patient to 24 C. For hear protection we used retrograde and antegrade cold blood cardioleflia. After aortic crossclamping we performed a longitudinal aortotomy, we found a intimal flap starting above the ostium of the left main. The aortic valve was bicuspid with severe calcinosis. We decided to perform the Bentall De Bono procedure. We used a 21 mechanical aortic valve and 30 mm vascular graft. The CPB time was 183 min, Aortic Crossclamp time was 123 min, Reperfusion time was 47 min.

Results: The only MACE was respiratory failure due to relaxation of the left hemidiafragm. In 6 postoperative day we

performed a plication of the left hemidiafragm trough a left anterolateral thoracotomy in 5th intercostal space. In 11th postoperative day we performed a tracheostomy. The patient was weaned from mechanical ventilation in 46th postoperative day and discharged home in 50th postoperative day.

Conclusions: Congenital pericardial agenesis is very rare condition 0.01% of the population. An association with other congenital cardiac, pulmonary or skeletal abnormalities is found in 1/3 of cases, the more common cardiac defects are VSD, ASD and Bicuspid Aortic Valve. In this case pericardial agenesis protected the development of cardiac tamponade and saved the life of the patient.

PLENARY SESSIONS 2 (CORONARY)

Moderators: Prof Sotirios Prapas, Prof Belhan Akpinar

C1.**CORONARY SURGERY IN ALBANIA**

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Objectives: In the last years CABG surgery has become a routine procedure in Albania. Around 1000 open heart procedures are performed in Albania every year. More than 50% of those procedures are done in the UHC "Mother Teresa". In our center CABG is the main procedure. Our aim is to study retrospectively the results.

Methods: In the study we have included 420 CABG procedures that are performed in the UHC in the last two years. From the study are excluded the patients that had combined interventions.

Results: Mean age of the patients was 61.7 years and 21.9% were female. The risks factors were in the range of our population. 73% had HTA and 32 % diabetes mellitus. 71% of the patients had previous myocardial infarction. Mean EF 53%. More than 50% of the patients presented triple vessels disease and 24% left main. An average of 3.27 distal anastomoses per patient was undertaken. Mean cross clamp 68 min. In all the cases was done LIMA-LAD anastomose. In 15% double mammary and 10% Off-Pump. ICU stays of 29 hours and hospitalization of 11 days. Mortality was 3.2%.

Conclusion: We conclude that coronary surgery is a safe procedure in Albania. Albania has a young population and more intention should be given to the arterial revascularization and Off-Pump.

C2.

**STENTING VERSUS CORONARY BAPASS
ARTERY GRAFTING FOR PROXIMAL LEFT
ANTERIOR DESCENDING ARTERY DISEASE:
META-ANALYSIS OF RANDOMIZED TRIALS IN
THE DRUG-ELUTING STENT ERA**

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Objective. The choice of revascularization strategy for proximal disease of left anterior descending artery remains a matter of debate. There is limited evidence on the relative performance of coronary artery bypass surgery (CABG) versus stenting with bare metal or drug-eluting stents (BMS or DES).

Methods. We performed a meta-analysis of randomized trials comparing coronary angioplasty with implantation of BMS or DES with CABG.

Seven trials reporting outcome data for a minimum of 6

months with a total population of 1074 patients were selected for this analysis. DESs were used in two of the trials with 319 patients. Patients were followed up from a minimum of 6 months up to 5 years. The main outcome of interest was the occurrence of major adverse cardiac events (MACE) defined as death, myocardial infarction or repeat revascularization. Other outcomes of interest were death, myocardial infarction and need for repeat revascularization as individual endpoints.

Results. The odds of incurring a major adverse cardiac event were markedly higher with DES compared to CABG (OR 2.24, 95% CI: 1.59 to 3.15, $p < 0.001$). This difference was entirely explained by the superiority of CABG versus stenting regarding the need for repeat revascularization procedures (OR 3.71, 95% CI: 2.31 to 5.97, $p < 0.001$). However, the difference between stenting and CABG was no longer observed when the analysis was confined to trials using DES ($p = 0.25$ for MACE and $p = 0.63$ for repeat revascularisation). On the other hand, there were no differences between patients treated with DES versus CABG regarding the odds of death (OR 0.70, 95% CI: 0.35 to 1.40, $p = 0.31$) or myocardial infarction (OR 0.76, 95% CI: 0.37 to 1.56, $p = 0.45$).

Conclusion. Coronary artery bypass grafting is superior to stent implantation for treatment of proximal disease of left anterior descending artery. However, the superiority might be lost in patients undergoing DES implantation.

C3.

**SHOULD THE LEFT INTERNAL MAMMARY
ARTERY BE ANASTOMOSED TO A
MODERATELY STENOTIC CORONARY ARTERY?**

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Objectives: The purposes of this study were to investigate the effects of competitive blood flow on morphological and functional status of Internal Mammary Artery (IMA) grafts anastomosed to the LAD with moderate stenosis during the early postoperative period and at follow-up.

Materials and Method: Between September 1995 and September 2011, 42(Group I) patients underwent CABG employing both IMAs. All patients presented critical stenosis of two vessels (obtuse marginal and right coronary arteries) and $< 65\%$ stenosis of the LAD. LIMA was anastomosed to LAD in all cases. The postoperative angiographic and flow dynamic data were compared with a matched group of 105 patients(Group II) with LIMA anastomosed to a critically stenotic LAD. Within 1 year after surgery all patients in Group I and II respectively underwent coronary angiography and echocardiography. The mean follow-up was 6.8 ± 2.1 years.

Results: The string sign of LIMA was found in 12 patients in Group I and 3 in Group II patients ($p = 0.001$). The mean LIMA flow was significantly higher in Group II (< 0.001). The coronary artery stenosis in patients presenting string sign phenomenon resulted to be $53 \pm 4(\%)$ versus $63 \pm 4.7(\%)$ in the remaining 30 patients in Group I ($p = 0.007$). The peak

diastolic flow(i) at rest at LIMA main stem in patients with string sign phenomenon was 24 ± 3 (ml/min) versus 47 ± 6 (ml/min) in fully patent LIMA in Group I($p<0.001$). The angiographic control showed a significant progression of the native LAD atherosclerosis in 27 out of 42 in Group I. Instead, in the other 15 patients, the stenotic lesion at the LAD was 58 ± 3.5 (%) versus 53 ± 4 (%) during the early postoperative measurement($p=0.11$). Seven out of 12 patients in Group I with a string sign phenomenon during the early postoperative angiographic examination, presented at follow-up examination, a stenotic lesion $>70\%$ of the LAD and a fully patent LIMA graft. Also one LIMA string sign and both RIMAs with string sign resulted to be fully patent at follow-up. The linear regression analysis revealed a strong correlation between the LIMA mean flow and the recipient grade stenosis($\beta=0.53$, $p=0.00011$), low LIMA free flow ($\beta=0.37$, $p=0.046$), LIMA caliber ($\beta=0.21$, $p=0.0018$) and and the increased grade of stenosis at the LAD($p<0.0001$).

Conclusions: The competitive flow from the native coronary vessel in the presence of a low diastolic flow induces a reduction of LIMA graft flow when anastomosed to a non-critically stenotic coronary artery. However, higher blood flow demand, increases significantly the diameter and flow of the LIMA graft in such conditions. With the progression of the native coronary artery disease, the flow of the LIMA graft increases significantly to acceptable levels for this type of arterial graft, even in the presence of a string sign phenomenon which should be considered definitively as a reversible phenomenon, presenting a non-functioning situation of the internal mammary artery grafts.

C4.

THE "CORONARY DOME ARTERIAL REBUILDING," AN ORIGINAL CORONARY TOTAL ARTERIAL ENDARTERECTOMY TECHNIQUE. SURGICAL ASPECTS AND LATE OUTCOMES

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Objectives: The increasing referral of patients with diffusely diseased coronary arteries for revascularization has renewed interest in coronary endarterectomy(EA).Here we present our experience with an original total arterial reconstruction technique for coronary EA.

Materials and Methods: Between 2000-2012, 439 consecutive patients (307 men, mean age 59.5 ± 12.3 years) underwent an original EA called "coronary dome arterial rebuilding". Following extensive arteriotomy (mean 4.4 ± 0.7 cm for the LAD, 3 ± 0.6 cm for the OM and 3.2 ± 0.7 cm for the RCA) and atheroma remotion (eventually extended to collateral braches),the dome of the coronary artery was reconstructed with an adequate flap graft of skeletonized IMA for

the LAD(58%)and the OM(23%)and of radial artery for the RCA(10%).The remaining part of the native endarterectomized artery forms a posterior gutter giving the origins of collaterals branches. 9 of patients underwent coronary EA in multiple distributions. Mean 2.2 ± 0.3 arterial grafts/patient were employed. 53% patients underwent total arterial myocardial revascularization. The mean follow-up was 45 ± 23 months.

Results: Hospital mortality was 3.6% (n=16). Twenty (4.5%) patients had a perioperative myocardial infarction (MI), of whom 11 in the territory of the endarterectomized vessel. Multiple logistic regression analysis identified prolonged AoX time and EF $<30\%$ as independent predictors of perioperative death and MI (OR=2.6,CI=1.87-3.9, $p<0.001$; OR=1.2,CI=1.05-1.39, $p<0.01$, respectively). Within one year after surgery all patients ergometric test and 80% underwent coronary angiography. 14 endarterectomized vessels were occluded (5 LAD, 4 OM and 5 RCA; $p=0.56$). At follow-up, survival was 95.4% , with most (93%,) of the patients symptoms free. In symptomatic patients (n=33,), re-catheterization showed a progression of disease in the nonendarterectomized vessels and/or in the vein grafts, and 100% patency in bypass grafts to endarterectomized vessels.. Cumulative actuarial survival at 7 years was 96.3% and free-event cumulative survival was 93%. The Cox model revealed the LVEF $<35\%$ ($p=0.016$), age >70 years($p=0.025$), NYHA grade $>III$ ($p=0.0019$), non TAMR($p=0.002$) and the preoperative presence of more than one ischemic area($p<0.001$) as strong predictors for poor overall cumulative free-event survival.

Conclusions: This technique enhances the probability to achieve a complete and arterial revascularization in patients with an unfavourable anatomical substrate with acceptable operative risk and good long-term results. The predictors for poor overall free-event survival seem to be similar to the general population undergoing conventional CABG.

C5.

SURGERY FOR PATIENTS WITH DIFFUSE ATHEROSCLEROTIC DISEASE

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Objective: An increasing number of patients with peripheral and carotid vascular disease are undergoing coronary artery bypass grafting. Such patients have an increased risk of adverse outcomes. Our aim was to quantify the effect of on time cardiopulmonary bypass in this group of patients.

Methods: Between March 2006 and March 2012, 6090 consecutive patients underwent coronary artery bypass grafting; 1730 (28.4%) had combined coronary, peripheral and carotid vascular disease We used multivariate logistic regression analysis to assess the effect of multimorbidity on post-operative in-hospital mortality and morbidity.

Results: The primary combination was CABG with abdominal aortic aneurysm (AAA)in combination with cerebrovascular and peripheral vascular disease in 85 patients

(4.9%), cerebrovascular disease (CVD) and CABG in 627pts(36.3%) and CABG and lower extremity ischemia in 673pts (38.9%), and combination of CABG and cerebrovascular and peripheral vascular disease in 345 pts (19.9%).

All 1730 patients had severe correctable CAD. In patients with cerebrovascular, peripheral and combination with coronary artery disease, bypass surgery was performed after resolving of primary vascular disease. In group of patients with AAA, it was operated after resolving a vascular disease, and the end abdominal aneurysm was replaced with a graft. The overall operative mortality for 1730 operated patients with cardiac and peripheral vascular procedures was 1.7%(29pat).

Like a postoperative complications stroke incidence was 1.5% (26 pts). Postoperative hospital stay was 5.5 days.

Conclusions: Planned by-pass surgery is safe in patients with peripheral vascular disease, with acceptable results. The incidence of postoperative stroke is substantially reduced when avoiding cardiopulmonary bypass in patients with present carotid disease and peripheral vascular disease.

C6.

THE EVALUATION OF THE QUALITY OF LIFE AFTER OPCAB SURGERY IN PATIENTS WITH MULTIFOCAL ATHEROSCLEROSIS

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Objective: The involvement of more than one vascular territory (ischemic heart disease, peripheral vascular disease and cerebro-vascular disease) by the atherosclerosis is considered multifocal atherosclerosis.

117 patients with multifocal atherosclerosis received OPCAB in the cardio surgery department of National Heart Hospital for the period 2006-2011.

With this study we present our results regarding the quality of life of these patients.

Methods: The evaluation of the quality of life of patients with multifocal atherosclerosis who had OPCAB was performed using EuroQol questionnaire. 35 patients (31 male and 4 female) were interviewed by the phone. Five questions were used with tree passive answers each for the evaluation of the quantity criteria. A self-evaluation scale was used for the quality characteristics of the study.

The questionnaire is based on the "standardize instrument for use as a measure of health outcome (EQ-3D)". The patients are divided on two groups according to the vascular territory involved: those with ischemic heart disease and peripheral vascular disease or cerebro-vascular disease and those with ischemic heart disease and both peripheral vascular disease and cerebro-vascular disease.

Results: Based on the questionnaire results, the quality of life of the patients with multifocal atherosclerosis after OPCAB is considered as very good.

Conclusions: Compared with the patients with isolated ischemic heart disease, the patients with multifocal atherosclerosis have worse prognosis and quality of life. In our department, OPCAB is used preferentially as an alternative to the conventional CAB with cardiopulmonary bypass for these patients. The quality of life of the patients with multifocal atherosclerosis after OPCAB was found by our study is very good.

C7.

OFF PUMP CORONART REVASCULARIZATION, THE IDEAL INDICATION FOR PATIENTS WITH PORCELAIN AORTA AND CALCIFICATION OF GROSS ARTERIES

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Introduction: Patients with the calcified aorta (porcelain aorta) and severe calcification of the great vessels are a challenging dilemma for the cardiac surgeon regarding bypass technique, choice of conduit and selection of proximal anastomotic sites, due to the high incidence of devastating thromboembolization and aortic injury. Despite the high risks and technical difficulties there is not currently a specific surgical approach to avoid manipulation of the heavily calcified ascending aorta.

Case Presentation: A 58 year old male patient with unstable angina and reduced EF 50% was presented in our service with triple vessel disease. The patient had also severe peripheral vascular disease. With Echo Doppler and scanner we diagnosed closure of the right internal carotid artery. Intra-operatively we have find a porcelain aorta. We performed off pump in situ, LIMA-LAD and RIMA-CX anastomoses. No myocardial infarction occurred. The patient was extubated in the first post-operative day. He stayed 2 days in ICU and was discharged after 11 days without any problem in post operative period. In one year of follow up the patient is free of angina.

Conclusion: Off-pump coronary artery bypass grafting seems to be an ideal indication in patients with porcelain aorta because the surgical techniques of "no-touch" and "no-cannulation" can be applied.

C8.

CHRONIC KIDNEY DISEASE IN PATIENTS TREATED WITH CABG: PERIOPERATIVE OUTCOMES AND LIMITATIONS

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Objective: The field literature has long debated over the impact that end stage renal disease has over the prognosis of CABG treated patients. Since little is known regarding the perioperative prognosis of patients with chronic kidney disease and coronary artery disease undergoing surgical

myocardial revascularization, we designed this study in order shed some light into this matter.

Material and Methods: We retrospectively investigated all patients that were subjected to CABG at the Cardiovascular Institute, Iasi during 2000-2010. We divided the patients into group A- 92 patients with chronic kidney disease, and group B -1056 patients without renal impairment.

Results: Patients in Group A associated a higher number of comorbidities when compared with patients in group B: diabetes 41.30% vs. 26.70%, arterial hypertension 83.69% vs. 64.20%, peripheral vascular disease 16.30% vs. 3.40%, cerebrovascular disease 20.65% vs. 1.04%, congestive heart failure NYHA class III-IV 41.30% vs. 6.81%. Mean age and preoperative LVEF were similar: 64.36 ± 7.89 years vs.

59.86 ± 9.08 years and $52.58 \pm 11.08\%$ vs. $53.34 \pm 10.93\%$ respectively. The postoperative results were impaired by the presence of chronic kidney disease: average time spend in the ICU was 8.56 ± 6.74 days vs. 6.53 ± 3.78 days, average mechanical ventilatory support 26.85 ± 56.41 hours vs. 15.36 ± 44.56 hours. The mortality rate of the patients who underwent CABG \pm other procedures was 2.17% vs. 1.98% and for patients requiring only CABG was 1.66% vs. 0.66%.

Conclusions: Chronic kidney disease contributes to the enhancement of postoperative comorbid complications, length of stay, hospital costs and short term mortality of patients undergoing CABG. Surgical myocardial revascularization is not prohibitive for patients with CKD, as our results prove a good overall postoperative outcome.

PLENARY SESSIONS 3 (VALVE AND CORONARY)Moderators: *Prof Gencho Nachev, Prof Hani Najm***VC1.****CONTINUOUS SUTURE TECHNIQUE IN AORTIC VALVE REPLACEMENT**

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Objective: The aim of the study is to describe our experience in using continuous suture technique for aortic valve replacement and to evaluate the possible advantages of it.

Methods: Between February 2001 and October 2011, a total number of 443 patients with aortic valve stenosis underwent aortic valve replacement. It was isolated in 217 patients (group A), combined with coronary vascularisation in 137 cases (group B) and with other concomitant cardiac procedures in 89 cases (group C). In all groups continuous suture technique was used. The most of coronary anastomosis performed "off pump" and only few of them on a beating heart with the support of the pump. Valves used were metallic in 247 cases, stented in bioprostheses in 188 cases and unstented bioprostheses in 8 cases. Sizes of the valves varied from 19 to 27. The valve had always the size of the annulus except for few cases in which the annulus was greater than 27.

Results: The aortic cross-clamp time and cardiopulmonary ByPass time were similar in groups A and B and significantly longer in group C. No perivalvular leak was detected in entry postoperative echocardiograms. There was no need for aortic annulus enlargement. Hospital mortality was 3,5 % in group A, 4,3 % in group B and 3,3 % in group C, respectively. There were no deaths or complications associated with suture technique. During the long period of follow up 2 patients of group A and 1 patient of group C developed throughout a 6-month period postoperatively perivalvular leakage requiring reoperation. The reason was tearing of the annulus tissue. In all cases the metallic valves placed were smaller in size than the enlarged annulus size.

Conclusions: Continuous suture **Method** is safe and useful for aortic valve replacement technique. It is simple, quick and effective, saving ByPass and cross clamp time in benefit of other cardiac procedures. Combined with 'off pump' coronary revascularisation, it reduces the danger of the operation. However, in cases with large aortic annulus it must be avoided.

VC2.**DOES THE PATTERN OF 30-DAY MORTALITY AFTER AORTIC VALVE REPLACEMENT CHANGE IN 20 YEARS**

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Objective. Referral patterns for aortic valve replacement have changed over time. Current study explores if the predictors for 30-day mortality also changes between 1986 and 2006.

Methods. One-thousand files of patients who underwent aortic valve replacement were studied retrospectively. For four 5-year periods (1986-1991; 1992-1996; 1997-2001 and 2002-2006), 20 preoperative (non-cardiac, cardiac and valvular) and 5 peroperative factors were screened for their effect on 30-day mortality by an univariate chi-square analysis. The significant factors were entered in a multivariate logistic regression analysis; to identify the independent predictors.

Results. There were 530 males. The median age was 75(71-77) years and 610 patients also underwent CABG. Thirty-day mortality was 37/1000. Between 1986 and 1991, the mortality was 6/80 (7.5%) and only one predictor could be identified: age>80 (p=0.043; Odds Ratio=11.8, 95%; Confidence Interval=1.0-148.9). Between 1992 and 1996, the mortality was 6/216 (2.8%). Its independent predictors were valve regurgitation (p=0.024; OR=15.1; 95%CI=1.4-161.1) and age>80 (p=0.036; OR=10.2; 95%CI=1.2-90.6). Between 1997 and 2001, the mortality was 12/345 (3.5%). Its predictors were concomitant CABG (p=0.002; OR=2.4; 95%CI=2.4-48.1), need for digitalis (p=0.015; OR=5.5; 95%CI=1.4-21.5) and need for urgent surgery (p<0.0001; OR=38.8; 95%CI=6.3-237.5).

Between 2002 and 2006, the mortality was 13/365 (3.6%). Its predictors were age>80 (p=0.010; OR=5.4; 95%CI=1.5-19.4), chronic renal disease (p=0.009; OR=5.1; 95%CI=1.5-17.5) and need for urgent surgery (p=0.025; OR=8.1; 95%CI=1.2-52.9).

Conclusions. The 30-day mortality rate does not change noteworthy throughout the 20-year time span. Age>80 remains a predictor and need for urgent surgery has emerged as a major predictor. This predictor is liable for change, by earlier referral. This could improve the postoperative results.

VC3.

EARLY AND MID-TERM FUNCTIONAL AND HEMODYNAMIC EVALUATION OF THE ST. JUDE MEDICAL REGENT 17-mm AORTIC VALVE MECHANICAL PROTHESIS.

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Objective. The aim of the present study is to report the early and mid-term clinical and hemodynamic results of a prospective trial investigating the clinical performance of the St Jude Medical Regent 17-mm mechanical aortic valve prosthesis (SJMR-17).

Materials and Methods. Between January 2000 and September 2008, 20 patients with aortic valve stenosis underwent first time AVR with a SJMR-17. There were 18 females and two males. Mean age was 69.2 ± 7.3 years and mean BSA was 1.68 ± 0.2 m². The mean follow-up was 18.7 ± 9.2 months (range 10-32 months). All patients were monitored with serial echocardiograms; the first study was performed preoperatively, subsequent controls were at 2 months, 6 months, and within 1 year, respectively. All survivors underwent Dobutamine stress test at 1 year after surgery.

Results: There was one death. At six months follow-up the mean NYHA FC class was 1.3 ± 0.6 significantly lower than preoperatively 2.75 ± 0.86 ($p < 0.0001$). The peak and mean transprosthesis gradients were 29 ± 6.8 and 17.5 ± 4.5 mmHg respectively, significantly lower than preoperatively. Left ventricular mass (gm) and indexed left ventricular mass (gm/m²) were 191 ± 23.8 gm/m² and 114.5 ± 10.6 gm/m² significantly lower than preoperative values 258 ± 43 gm ($p < 0.0001$) and 157 ± 27.7 gm ($p = 0.00003$). The M-TPG correlated well with the LVMi reduction ($p = 0.033$). During DSE the P-TPG and M-TPG increased significantly to 73.8 ± 17.7 mmHg and 37 ± 10.7 mmHg respectively, significantly higher than at basal state. Differently, the EOA, EOAI and DVI increased during DSE but not significantly versus the values measured at rest. The multivariate regression analysis identified EOAI, BSA, age, postoperative LVMi as strong predictors for higher mean transprosthetic gradients. During the same period of time 37 patients underwent aortic valve replacement with annulus enlargement by employing a St Jude Regent Nr. 19. There were no differences compared to St Jude Nr. 17 at follow up.

Conclusions. The SJMR-17 prosthesis might be employed with satisfactory postoperative clinical and hemodynamic outcome in patients with small aortic annulus, especially in elderly patients, as an alternative to other valves' choice or alternative surgical strategies such as annulus enlargement.

VC4.

AORTIC VALVE SURGERY: RESULTS OF AORTIC VALVE SURGERY COMBINED OR NOT WITH CABG SURGERY

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Objective: In our country the number of patients doing aortic valve surgery with or without CABG is increasing continuously. The goal of this study is to evaluate the results of aortic valve surgery alone or combined with CABG surgery in terms of mortality and perioperative complications.

Methods: This is a retrospective and prospective study. We included the patients underwent aortic valve surgery (replacement or another procedure) with or without CABG from 2007 and in April 2012. The population of 243 patients is divided into two groups: Group 1 included 184 patients who performed isolated aortic valve surgery; Group 2 included 59 patients who performed combined surgery.

Results: In general the hospital mortality is 4.7%. The hospital mortality for group 1 is 3.8% and for group 2 is 6.7%. The difference is not statistically significant. About the complications low cardiac output, pulmonary complications, stroke, bleeding, wound infections, renal complications are 10.1% in vs 18.6%, 3.26% vs. 13.51%, 0.54% vs. 3.3%, 1.63% vs. 5.08%, 1.63% vs. 10.1%, 0.54% vs. 5.08% respectively for the group 1 and 2. The differences were all not statistically significant.

Conclusions: In our experience we achieved satisfactory results. Simultaneous coronary artery by pass with aortic valve surgery increases slightly the operative mortality and perioperative complications. Our next goal is to estimate the long term results for both groups.

VC5.

LONG-TERM ECHOCARDIOGRAPHIC RESULTS OF MITRAL VALVE REPAIR IN ENDOCARDITIS

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Objective. While a systematic review of the literature shows that repair of an infected mitral valve is associated with good clinical in-hospital and long-term results, repair durability is still disputed. We compared the long-term clinical and echocardiographic results of valve repair in endocarditis and in degenerative heart disease.

Methods. From 2004, 475 patients with degenerative mitral valve underwent repair in our Medical Center. Of

them, 42 (9 %) were operated on for acute or sub-acute mitral endocarditis (group I), and were compared with 433 patients who had no history of endocarditis (group II). All patients where followed prospectively.

Results. There was 1 (2%) in-hospital death in the endocarditis group and 1 (0.2%) in the myxomatous group ($p=0.17$). Mean late clinical and echocardiography follow-up was 28 ± 22 months (1-88months) and was 96% complete. Late all-cause mortality was 0% in group I versus 1% ($n=6$) in group II ($p=1.00$). Freedom from reoperation on the mitral valve was 95% (2 patients) and 99% (6 patients) in groups I and II, respectively ($p=0.15$). Freedom from recurrent sub-acute bacterial endocarditis (SBE) was 100% in group I. Late echocardiography revealed that 85% and 90% of patients (groups I and II, respectively) were free from moderate or severe mitral regurgitation ($p=0.36$). All other late valve-related complications were similar between the groups.

Conclusions. Mid to long-term clinical and echocardiographic results, among patients undergoing surgery for infective endocarditis, compare well with those of repair in the non-SBE degenerative group. Freedom from recurrent endocarditis was excellent.

VC6.

SHORT AND MIDTERM OUTCOME OF CONSERVATIVE SURGERY FOR MITRAL REGURGITATION

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Objective. During the last years, there has been a considerable change in the etiology of mitral regurgitation as well as in the treatment strategies focusing on surgical repair of the mitral valve. The aim of the study is to evaluate the short and midterm outcome of conservative surgery for mitral regurgitation in 2 centers in Albania.

Methods. Eligible patients were considered those who underwent mitral valve repair for mitral regurgitation \geq moderate at our institutions. Patients undergoing concomitant cardiovascular interventions were also considered for participation. Patients with isolated mitral stenosis were excluded from the study. Patients were followed-up clinically and echocardiographically during hospital stay, at 1 and 6 months after discharge. Primary endpoint was death and need for reoperation.

Results. A total of 53 patients were included in this study. Mean age was 57.5 years. On admission, 19% of the patients had heart failure NYHA II, 68% had NYHA III and 13% had NYHA IV. Sixty-six percent of the total patient population had severe mitral regurgitation and 34% had moderate or moderate-to-severe regurgitation.

After surgery, 29 (54.7%) of the patients had no residual or only minimal mitral regurgitation, 20 (37.7 %) had mild regurgitation, 4 (7.5%) of them had mild-to-moderate or

moderate regurgitation. One-month follow-up was available in 98% of the patients. After one month, 51.9% of them had no residual or minimal mitral regurgitation, 40.4 % had mild regurgitation and 7.6% had mild-to-moderate or moderate regurgitation.

Six-month follow-up was available in 77% of the patients. After 6 months, 36.6% of them had no or minimal residual regurgitation, 53.7% had mild regurgitation, 5% had mild-to-moderate or moderate and 5% had moderate-to-severe mitral regurgitation.

No patient died or underwent reintervention.

Conclusion. Patients who undergo conservative surgery for mitral valve regurgitation have very good short and mid-term outcome.

VC7.

LEFT VENTRICULAR REVERSE REMODELING AFTER COMBINED CABG AND MITRAL VALVE REPAIR FOR MODERATE ISCHEMIC MITRAL REGURGITATION

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Objective: Once appeared, moderate to severe chronic ischemic mitral regurgitation (IMR) leads to significantly higher 1 and 5 years mortality rate according to the literature. Most probably the reason is progression of underlying ischemic heart disease, with remodeling of the left ventricle (LV), volume overload and wall stress perpetuated by mitral regurgitation. The purpose of our study is to evaluate left ventricular reverse remodeling during follow-up of patients post combined CABG and mitral valve repair.

Methods: We analyze retrospective data for 71 consecutive patients with moderate and moderate-to-severe ischemic mitral regurgitation, which underwent combined CABG and mitral valve repair at our institution. All patients were examined using preoperative trans-thoracic echocardiography (TTE), the majority were further evaluated by pre- and post-operative trans-esophageal echocardiography (TEE). Early (1 month postop) and late (between 6 and 52 months) TTE follow-up examinations were performed. The degree of mitral regurgitation, left atrial, left ventricular dimensions and function were evaluated preoperatively, early and late postoperative changes were analyzed.

Results: The mean ejection fraction increased slightly from 39% to 40% early postoperatively, but significantly at the late follow-up (43%, $p = 0.005$). The mean LV end-diastolic dimension decreased from 61 ml to 58 ml ($p = 0.001$) at early and to 57 ml ($p = 0.006$) at late follow-up. The same pattern was observed with mean end-systolic dimension – from 47 ml to 45 ml early ($p = 0.002$) and 44 ml late after surgery ($p = 0.003$). Recurrent IMR was detected in only 2.8% (2/71) of the evaluated patients.

Conclusion: There is significant LV reverse remodeling of patients with after combined CABG and mitral valve repair for moderate and moderate-to-severe IMR. It is still unclear if it is related to higher life expectancy and improved quality of life.

VC8.

NATURAL HISTORY OF MILD TO MODERATE ISCHEMIC MITRAL REGURGITATION, LEFT UNCORRECTED AT THE TIME OF SURGICAL REVASCULARISATION

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Objective: Mitral regurgitation complicates about 11 to 30% of ischemic heart disease patients, and still there is no consensus regarding the need of surgical correction of mild to moderate ischemic mitral regurgitation during surgical revascularization procedure. Left alone it could either improve or progress to a more severe degree and deteriorate patient's condition and quality of life.

Methods: We analyze retrospectively data for 69 consecutive patients subjected to isolated CABG and suffering mild to moderate ischemic mitral regurgitation left uncorrected. All patients have been examined using trans-thoracic echocardiography prior the surgery, and early (1 month after the procedure) and late follow-up (between 6 and 52 months) was accomplished. The degree of mitral regurgitation, left atrial, left ventricular dimensions and function were evaluated preoperatively, early and late postoperative changes were analyzed.

Results: There was no early mortality, and during the follow-up the overall mortality was 10.1% (7 / 69). Ejection fraction improved significantly at both early (mean EF 41% vs 4 %,

p = 0.009) and late follow-up (mean EF 41% preoperatively vs 46%, p = 0.0001, late after surgery). The changes in left ventricular dimensions compared to preoperative data were modest. The degree of mitral regurgitation decreased significantly in the early postoperative period (p = 0.0000002).

Conclusion: We need more data and prospective study of patients with mild to moderate ischemic mitral regurgitation subjected to CABG, to be able to present a clear concept for diagnostic and prognostic criteria and to provide the best treatment to this category of patients.

VC9.

WHAT THE SURGEON NEEDS TO KNOW BEFORE OPERATING PATIENTS WITH ISCHEMIC MITRAL REGURGITATION

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Objective: About 65% of cardiac surgical procedures in our institution are revascularization – 51% isolated CABG, and almost 14% combined CABG + valve procedure. The operating surgeon should be prepared to make the decision whether to repair or to leave significant ischemic mitral regurgitation (MR) alone. The purpose of our study is to describe the decision making criteria and evaluate the sufficiency of the information used.

Methods: We analyze retrospective data for 139 consecutive patients with significant ischemic MR (mild to moderate – 69, moderate to severe – 71). The main surgical indication for all of them was coronary artery disease (CAD), but 71 underwent concomitant mitral valve repair. The decision making process was based on clinical data, data from coronary angiography, transthoracic and transesophageal echocardiography (TTE and TEE respectively). A set of echocardiographic measurements – vena contracta, effective regurgitant orifice and regurgitant volume, tethering, tenting height and area, coaptation line of the leaflets, mitral valve annulus measurements etc. have been used to evaluate the severity and mechanism of MR. All patients have preoperative TTE, and the majority of them have pre- and postoperative TEE, early (at 1 month) and late TTE follow-up (between 6 and 52 months).

Results: The information given by the TTE and TEE examination is generally sufficient for a proper decision making (only 2 patients left the operating theater with MR greater than 2+), but is not enough for long term prognosis for recurrent MR.

Conclusion: New tree-dimensional echocardiographic images could be helpful in the future, but even the available echocardiographic measurements are very useful for the decision making and proper choice of volume of surgery.

PLENARY SESSIONS 4 (CONGENITAL)*Moderators: Prof George Sarris, Stoian Lazarov***Con 1.****SINGLE-PATCH AND 2-PATCH TECHNIQUES FOR REPAIR OF PARTIAL ANOMALOUS PULMONARY VENOUS CONNECTIONS: EFFECT ON SINUS NODE FUNCTION AND LATE VENOUS OBSTRUCTION**T. Loukanov¹, C. Sebening¹, M. Gorenflo², M. Karck¹¹Department of Cardiac Surgery, University of Heidelberg, Germany;²Department of Pediatric Cardiology, University of Heidelberg, Germany

Objective: We reviewed our experience with the single-patch, 2-patch techniques for repair of a partial anomalous pulmonary venous connection. Our surgical strategy for repair of sinus venosus atrial septal defect has evolved chiefly to avoid sinus node dysfunction.

Methods: From 2002 to 2011, 32 patients (20 male patients) were identified. The single-patch and two-patch technique was used in 20 and 12 patients, respectively. The median age was 32.5 years (range, 1–75). Of the 32 patients 26 had an atrial septal defect.

Results: There were no early or late deaths and no reoperations. No patient had pulmonary vein stenosis. Five patients had SVC stenosis: 2 mild after two-patch repair; 1 moderate and 1 mild after single-patch repair; ($p = 0.3$). The incidence of rhythm change from sinus to low atrial or junctional rhythm was 38% and was significantly greater among patients with two-patch repair compared with single-patch repair.

Conclusions: Surgical treatment of partial anomalous pulmonary venous connections is associated with excellent outcomes. The overall incidence of late superior vena caval or pulmonary vein stenosis is low. Although not significant, the 2-patch technique might be associated with a greater incidence of sinus node dysfunction and late pulmonary venous stenosis. The late development of superior vena caval obstruction is a concern with all techniques, necessitating close follow-up.

Con 2.**MID- AND LONG-TERM RESULTS OF BOVINE JUGULAR VEIN VALVED CONDUIT CONTEGRA USED FOR RIGHT VENTRICULAR OUTFLOW TRACT RECONSTRUCTION**I. Mitev¹, S. Georgiev², G. Konstantinov¹, P. Mitev¹, I. Velkovski², M. Tzonarova², A. Lacheva², S. Lazarov¹¹Department of Congenital Heart Surgery, National Heart Hospital, Sofia;²Department of Pediatric Cardiology, National Heart Hospital, Sofia

Objective: Many congenital heart malformations are associated with atresia or stenosis of right ventricular outflow tract (RVOT). An option to reconstruct RVOTO is by using bovine jugular vein xenograft Contegra. This valved conduit

protects the right ventricle (RV) from the unfavourable pulmonary regurgitation (PR).

Methods: Between 2001 and 2011 63 conduits Contegra have been implanted in 53 patients aged between 6 days and 10 years (mean 3.2 years) with body weight ranging from 3.3 to 60 (mean 13) kilograms. Contegra have been used for the correction of truncus arteriosus ($n=17$), pulmonary atresia with ventricular septal defect (VSD) ($n=12$), transposition of the great arteries with VSD and pulmonary stenosis ($n=7$), tetralogy of Fallot ($n=5$), double outlet RV with pulmonary stenosis ($n=4$), tetralogy of Fallot with absent pulmonary valve ($n=3$), aortic stenosis ($n=3$) and other complex malformations ($n=2$). The immediate, mid-term and late results regarding the function of the conduit (stenosis and regurgitation grade) and the RV status have been assessed echocardiographically.

Results: During the follow-up period up to 9.6 years 6 patients died. Only one death was directly conduit related. Percutaneous interventions were performed in 10 patients. There were 13 reoperations for conduit exchange after a mean interval of 52.2 months following the initial operation. 9 reimplantations were due to degenerative conduit stenosis, the others were due to dilation with significant regurgitation, endocarditis, thrombosis and somatic outgrowth. At last follow-up 48 (76.2%) patients had absent or mild PR, 13 (20.6%) had moderate and 2 (3.2%) – severe PR.

Conclusions: Contegra is an appropriate alternative for RVOT reconstruction leading to good haemodynamic results. The development of degenerative stenosis necessitates strict echocardiographic observation as well as prevention of infectious and thrombotic complications. Surgical technique and conduit preparation are important for the final outcome.

Con 3.**POSTOPERATIVE OUTCOME IN PATIENTS UNDERGOING GLENN OPERATION IN ASSOCIATION WITH TRICUSPID VALVE REPAIR FOR EBSTEIN ANOMALY AND FAILING RIGHT VENTRICLE**E. Prifti^{1,4}, A. Baboci¹, A. Veshti^{1,2}, E. Kajo¹, E. Dado², A. Fagu¹, M. Bonacchi³, S. Kuci^{1,4}, V. Vanini⁴¹ Clinic of Cardiac Surgery, University Hospital Center of Tirana, Albania;²Hygeia Hospital Tirana, Albania; ³Divisione di Cardiocirurgia, Policlinico Careggi, Florence, Italy; ⁴Heart of Children Foundation, Bergamo, Italy

Background and Objective: Repair of Ebstein anomaly and impaired right ventricular function pose challenges for the cardiac surgeon especially in adult patients. The bidirectional cavopulmonary shunt may improve early outcomes. We reviewed our experience with the 1.5-ventricle repair in this patient population.

Materials and Methods: Between 2000 and 2011, 10 patients underwent 1.5 ventricle repair for Ebstein anomaly. All of them had a bidirectional cavopulmonary shunt constructed. Six of them were operated in Tirana, Albania. The median age at operation was 15 years (55 months–27.8 years). All of the patients had severe Ebstein anomaly with dilated

right-sided chambers and/or right ventricular dysfunction. The mean left ventricular ejection fraction was 55%

Results: Procedures included bidirectional cavopulmonary shunting (10), tricuspid valve replacement (1), tricuspid valve repair (9), and right ventricular plication according to Danielson 4 and according to Carpentier in 6 patients, ASD closure in 3. Shunting was planned preoperatively in 8 patients; the indication in 2 other patients was hemodynamic instability after separation from cardiopulmonary bypass. The azygos vein was left open in all patients on 1½ repair to prevent severe postoperative central venous hypertension. One patient underwent Fontan operation 24 hours after the first procedure. This patient died during the second procedure due to low cardiac output. At follow-up, tricuspid incompetence of 8 survived patients with bidirectional cavopulmonary shunt undergoing tricuspid repair was mild in 6 and moderate in 2. One of the patient undergoing repair at 19 year old, became a mother 3 years later, with an excellent pregnancy period.

Conclusions: The 1.5-ventricle repair in association with tricuspid valve repair can be employed with excellent outcome in patients with severe Ebstein anomaly and impaired right ventricular function who are at high risk for surgical treatment. We believe the bidirectional cavopulmonary shunt may be considered as a planned procedure, as an intraoperative salvage maneuver, or as an alternative to cardiac transplantation in selected patients.

Con 4.

INTERVENTIONAL PROCEDURES FOR CONGENITAL HEART DISEASE

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Objective: Interventional techniques available for use in treating congenital heart disease include balloon dilation of valves and vessels, stent placement and coil embolization of collaterals, patent ducts and other arterial fistulae. In addition, a variety of devices for closure of atrial and ventricular septal defects and patent ducts currently are under investigation. Radiofrequency ablation of arrhythmias also is applicable to the pediatric population

Methods: During last 8 years 253 patients with congenital heart disease had been treated with interventional procedures in our hospital. All of them had been diagnosed by transthoracic and transoesophageal echocardiography. All patients had one day hospitalization.

Results: 123pts with atrial septal defects had been occluded with amplatzer septal occluder; 43pts had interventional closure of the persistent arterial channel between aorta and pulmonary artery by amplatzer AGA vascular plug et coil; 8 pts got ventricular septal defect occlusion by amplatzer septal occluder; balloon valvuloplasty of the congenital aortic valve stenosis was performed in 5 pts. and balloon valvuloplasty for pulmonary valve stenosis was performed in 52 pts. Aortic

stent for treatment of the aortic coarctation was implanted in 19pts. With an amplatzer AGA vascular plug coronary AV fistula was occluded in 3 pts. No mortality and no complications were noted. Follow up period is up to 8 years.

Conclusion: interventional catheterization has become solidified as an integral component of the comprehensive management of patients with essentially all forms of congenital heart disease. Patients are getting permanent solution with minimum side-effects of their health.

Con 5.

EXTRA-ANATOMICAL SHUNTS FOR TREATMENT OF AORTIC COARCTATION IN THE ADULT. CASE REPORT OF TWO CASES

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Introduction: Coarctation of the aorta is a relatively common defect that accounts for 5-8% of all congenital heart defects. Coarctation of the aorta may occur as an isolated defect or in association with various other lesions, most commonly bicuspid aortic valve and ventricular septal defect. The diagnosis of coarctation of the aorta may be missed unless an index of suspicion is maintained, and diagnosis is often delayed until the patient develops congestive heart failure (CHF), which is common in infants, or hypertension, which is common in older children.

There are several techniques to treat aortic coarctation, one of which is extra - anatomical bypass in which the conduit is anastomosed between the ascending and descending aorta "bypassing" the coarctation segment.

In our case reports, we are describing our experience with two extra - anatomic shunts of the coarctated aortic segment.

Materials and Methods: We are presenting two cases treated by extra anatomical shunts.

Case reports: A 61 year old man with coarctation of the descending aorta immediately after a left subclavian artery, diagnosed 30 years ago, treated with medications until present days and recently found significant mitral regurgitation. Gradient through the coarctated area of the aorta - 65 mmHg. The patient was operated as an elective and a mitral valve replacement with a mechanical heart valve Saint Jude Medical # 33, and an extra-anatomical shunt between the ascending and descending aorta with vascular prosthesis Gelwave # 18 was performed. After an uneventful postoperative period the patient is discharged from the hospital on the seventh postoperative day.

A 19 year old male patient was operated as an emergency case after migration of the stent used for the treatment of aortic coarctation. The patient has a history of ligated patent ductus arteriosus 18 years ago and hypertension registered recently before intervention. In deep circulatory arrest, extripation of the migrated stent from the aortic arch and in CPB extra - anatomical bypass from ascending to descending

aorta using vascular prosthesis Hemashield # 14 was performed. The patient was revised 3 hours postoperatively due to mediastinal bleeding and was discharged from the hospital on the seventh postoperative day.

Conclusion: Extra-anatomical bypass has a place for treatment of aortic coarctations of the adult especially when patients have concomitant heart diseases indicated for operative treatment.

Con 6.

SURGICAL TREATMENT OF GROWN-UP CONGENITAL HEART DISEASE PATIENTS

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Objective: The improvement of medicine and cardiac surgery in general, with development of new technologies and devices for diagnosis and treatment of congenital heart

diseases has increased the number of survival grown-up congenital heart disease patients. In addition, some of them (e.g. atrial septal defect, coarctation of the aorta, Ebstein's anomaly, and congenitally corrected transposition of the great arteries) may be diagnosed for the first time in adulthood.

In this study we present our experience and results in surgical treatment of grown-up congenital heart disease.

Methods: Data collected from retrospective study in 290 underwent cardiac surgery adult patients with congenital heart disease for a period of 22 years.

Results: Between 1990 and May 2012 in our department have been operated 290 adult patients (120 males and 170 females) with congenital heart diseases. The average age is 41 year old with 1.7% (5 patients) of early postoperative mortality. The most frequent procedure is ASD-Closure which was performed in 180 patients (62%).

Conclusions: Surgery in grown-up congenital heart disease patients (including anesthesia and intensive care) is very different from conventional adult cardiac surgery, even minor cardiac surgery may carry a high risk. Consultation with specialists, careful preoperative planning and intra-operative monitoring are vital to avoid complications.

PLENARY SESSIONS 5 (VARIA)

Moderators: Assoc Prof Dimitar Petko and Prof Georges Tedy

V1.

SURGERY FOR ABDOMINAL TUMORS INFILTRATING THE HEART AND INFERIOR VENA CAVA, USING CARDIOPULMONARY BYPASS

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Background: Most patients with hepatocellular carcinoma and thrombosis of the right atrium have a very short survival. Removal of tumor thrombus is done in order to avoid sudden death from pulmonary embolism. On the other hand 5 to 10% of all patients with hypernephroma developed renal vein thrombosis, which can proceed in to inferior vena cava and right atrium. It was shown that simultaneous radical nephrectomy and thrombectomy of the inferior vena cava result in better long-term survival. The aim of this work is to review our experience with on-pump surgical treatment of patients with abdominal tumors, infiltrating the heart and inferior vena cava.

Methods: From January, 2009 to March, 2012 eleven patients, 9 male and 2 female with average age 56 years (from 45 to 64) were treated in our center. Two patients have hepatic mass and 9 – renal mass. All have IVC thrombosis. All patients were operated on-pump from hybrid surgical team.

Results: Radical extraction of the tumor was possible in all patients. IVC thrombectomy was successful in all cases. One patient died during surgery. Among 8 surviving the operation two patients was reexplored for bleeding and three patients required CVVH. In both full recovery of the renal function was observed. One patient died in ICU, because of multi organ failure. No other major complications were observed. All 7 survivors were discharged home. Average hospital stay was 9 days (from 7 to 15 days). Histology revealed hepatocellular carcinoma in 2 patients and hypernephroma in other 9.

Conclusions: Our present study shows that patients with malignant diseases and large hepatic or renal tumors with IVC thrombosis could be operated on CPB, which guarantees radical tumor extraction with acceptable mortality and morbidity.

V2.

SURGICAL STRATEGY FOR INVASIVE PULMONARY AND MEDIASTINAL TUMORS REQUIRING RECONSTRUCTION OF THE SUPERIOR VENA CAVA

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Objective: The oncologic value of superior vena cava (SVC) resection for lung and mediastinal malignancies remains controversial. In this context, we have reviewed our experience in the treatment of locally advanced lung and mediastinal tumor invading the SVC system, analyzing post-operative outcome and long-term oncologic results.

Methods: In 5 years period 125 patients with SVC syndrome were retrospectively reviewed. All patients underwent non-invasive, minimally invasive or open chest operations. 10 patients with acute onset of SVC syndrome requiring diagnostic mediastinoscopy (VATS) were selected for percutaneous angioplasty of SVC with a stent graft. 6 patients with mean age 51,4 years (16-77 years) were operated. Among them 4 patients had anterior mediastinal tumor and 2 advanced lung cancer. The anterior mediastinal tumors consisted of invasive thymoma in 2 cases, angiosarcoma in 1 and hemangiopericytoma in 1, and the lung cancer was bronchogenic in 1 case and small cell in 1. Total reconstruction of SVC plus right upper bilobectomy was performed in one patient. Axial resection plus right pulmonectomy had 2 patients. 3 patients needed only reconstruction of the right subclavian vein and SVC. Only autologous pericardial patch was used for the vessel repair. In 1 case ECC was needed because of a fixed thrombus in the right atrium.

Results: All patients have been alive now (follow-up period from 6 months to 4 years). Early thrombosis of the innominate vein graft after the reconstruction had 1 patient and angiographic thrombolysis was performed. In all patients histologic proof of infiltration of the wall of the SVC was given. In the case of angiosarcoma local relapse and pulmonary metastasis were found 3 years after surgery. All patients underwent polychemotherapy and radiotherapy. No relapse of SVC syndrome have been seen.

Conclusions: SVC resection may achieve permanent cure in patients who would have been defined as inoperable some years ago. In the case of resection of mediastinal tumors total reconstruction of SVC with autologous pericardium was effective to long-term survival and improvement of SVC syndrome without continuous anticoagulation. In the case of lung tumors with infiltration of SVC, pulmonary resection with SVC reconstruction can achieve satisfactory long-term results in selected patients. The need for SVC resection alone should not be considered a contraindication for surgery when prosthetic replacement is feasible. The choice of patients for SVC resection depends mostly on their pathology. The oncologic value of SVC resections with ECC still remains controversial.

V3.

SURGICAL TREATMENT OF CHYLOPERICARDIUM FOLLOWING MITRAL VALVE CONSERVATIVE SURGERY.

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Background: Incidence of chylopericardium after cardiac surgery is very low and varies from 0.2% to 1.0%. Thomas and McGoon reported the first case of chylous pericardial effusion after cardiac surgery.

Case presentation: A 40 year old woman received conservative mitral valve surgery for severe mitral valve rheumatic stenosis at our clinic. The patient was readmitted a week after on an emergency basis with clinical signs of cardiac tamponade. After drainage of a milky fluid and laboratory analysis diagnosis of chylopericardium was obvious. The patient was treated conservatively for 30 days without success. Surgical reexploration was performed using a novel technique for stopping fluid leakage. The patient was given to eat fat 12 hours before surgery and on the operating room by gastric tube. No place leakage was found. We ligated and sutured thymus gland remnants and the pericardial edges with double suture prolene 4/0. Additionally Bioglue (Bio Glue Surgical Adhesive, Cryolife) was placed over the sutured tissues, around inferior vena cava and between the ascending aorta and pulmonary artery, to increase the possibility of closing the point of leakage. The right pleural space was opened for drainage and the patient was closed in the standard manner. The patient did well and was discharged without signs of pericardial or pleural effusion.

Discussion and Conclusion: Conservative and expectant management has been the mainstay during previous years with few reports of surgical approach. Rodrigues et al suggests that early definitive surgical treatment is a feasible option, which shortens the hospital stay and minimizes the complications related to chylous leak, especially protein malnutrition and reduced immunity.

We believe that conservative treatment may be effective in some cases but we need to know its limitations and cut-offs in terms of expecting time and amount of daily fluid drainage to establish good indications for surgery.

V4.

SURGICAL EXPERIENCE IN CHRONIC CONSTRICTIVE PERICARDITIS

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Objectives. Chronic constrictive pericarditis (CCP) still poses diagnostic and therapeutic problems despite the advancement and prosperity of medicine and science in the dawn of 21-st century. In the current clinical study we would like to share our surgical experience in chronic constrictive pericarditis.

Methods. A retrospective study of series of five consecutive cases (four men and one woman) operated between 2002 and 2011 at our Institution was reviewed. All the patients were in NYHA functional Classes III and IV; two of the patients had clinical signs of right ventricular failure and one of the latter ones had anasarca. The average duration of symptoms before diagnosis was 22 months. Conventional echocardiography, chest X-ray, CT and MR scanning showed pericardial calcification in all of the five cases. The etiologies included idiopathic (in two of the patients), tuberculosis (in two of the patients) and visceral leishmaniasis (in one HIV- negative patient).

The median sternotomy approach was used so that subtotal pericardiectomy could have been performed without cardiopulmonary bypass in three patients. Cardiopulmonary bypass was used in two patients. One of them underwent concomitant mitral band valvuloplasty while in the other patient severe haemorrhage caused by pulmonary trunk lesion necessitated the use of cardiopulmonary bypass. In all cases, the whole anterior pericardium was resected from phrenic nerve to phrenic nerve. We could not have been able to develop a cleavage plane in four of our patients with calcific pericardial plaques. We relieved constriction by reducing the size of the left in place plaques.

Results. Early postoperative mortality was not observed. The mean postoperative follow-up was six months. At follow-up appointment six months after surgery all patients were in NYHA functional Classes I or II.

Conclusions. The conclusion we have reached is that pericardiectomy is an effective treatment of symptomatic chronic constrictive pericarditis because it provides improvement in symptoms and functional Class and the mortality rate could be as minimized as possible but only if meticulous surgical management is the cornerstone of a planned successful outcome.

V5.

PREDICTORS FOR POOR OVERALL OUTCOME IN PATIENTS UNDERGOING LEFT VENTRICULAR ANEURYSM REPAIR. COMPARISON BETWEEN ENDOVENTRICULAR PATCH PLASTY AND LINEAR REPAIR

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Background: The aim of the study was to analyze the early and mid term outcome after postinfarction left ventricular aneurysm repair and to identify predictors for poor overall outcome. Simple linear resection and endoventricular patch plasty are alternative techniques to repair postinfarction left ventricular aneurysm. A second objective of the study was to compare these 2 methods with regard to early and mid term outcome.

Materials and Methods. We retrospectively reviewed the records of 87 patients who had an operation for postinfarction left ventricular aneurysm between 1999 and 2011. 19 patients underwent repair of left ventricular aneurysm in Tirana, Albania, as an initial experience between 2005-2011. The following variables were recorded: preoperative clinical, angiographic, and echocardiographic findings and operative procedures. Outcomes were early mortality (<30 days) and mid-term survival. Risk factors were pinpointed using t test or Mann-Whitney test, contingency tables, and survival curves. Independent risk factors were identified by logistic regression and Cox regression methods. Mean follow-up was 3.8 years (range, 6 months to 12 years). Clinical outcomes and echocardiographic measurements of left ventricular volume and sphericity in 52 patients who underwent endoventricular patch plasty were compared with those in 35 patients who had linear repair.

Results: The early mortality (<30 days) rate was 3.4% (3 patients) altogether, and the 5-year cumulative survival rate was 70%. Associated procedures were mitral valve replacement 5n 11 patients, mitral valve repair in 8 patients, posterior-basal LV aneurysm in 5, more than 2 LV aneurysm at the same patient in one case, postinfarction anterior VSD in 2, postinfarction inferior VSD in 2 and RV aneurysm in 1. Advanced age, history of ventricular arrhythmia, three-vessel disease, low LVEF, coronary endarterectomy were independent risk factors for early and total mortality. Poor left ventricular function predicted reduced long-term survival but did not increase surgical risk. The two groups according the surgical procedure were matched with respect to age, gender, comorbid risk factors, functional class, urgency of the operation, and concomitant procedures. Postoperative functional improvement was significantly better in the endoventricular patch plasty group within 6 months after surgery: At follow-up there were no measurable differences between the groups with respect to left ventricular ejection fraction (0.33 ± 0.12 versus 0.30 ± 0.09 ; $p = ns$).

Conclusions: Postinfarction left ventricular aneurysm can be repaired with acceptable surgical risk and long-term survival. Survival is reduced in cases with advanced age, history of ventricular arrhythmia, three-vessel disease, poor left ventricular function, and coronary endarterectomy. Non substantial differences were offered by the endoventricular patch plasty technique.

V6.

CARDIAC SURGERY IN PATIENTS WITH PREVIOUS PNEUMONECTOMY

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Introduction: Severe pulmonary dysfunction is a commonly occurring postoperative complication following cardiac surgery. Resection of a lung causes major anatomical and physiological changes. Shift of the mediastinum and reduction in respiratory function following pneumonectomy makes cardiac surgery challenging not only for the surgeon but also for the anaesthetist. The reported experience is sparse for patients with prior pneumonectomy who are undergoing surgery for ischemic or valvular heart disease.

We report a case of cardiac surgery following pneumonectomy to highlight certain important features that we think are important while managing these patients.

Case Presentation: The patient was a 56-year male who had undergone extra-pericardial pneumonectomy 30 years earlier for tuberculosis of the left lung. Echocardiography showed a left ventricular function of 50%. His coronary angiogram revealed severe triple vessel disease. Preoperative spirometry showed FVC 1.94 L (52% of predicted), FEV1 1.3 L (48% of predicted), FEV1/FVC ratio 70%. The pre-operative workup of this patient included computerised tomography of the chest to assess distortion of intrathoracic anatomy. In an attempt to improve the pulmonary function this patient was admitted 10 days prior to surgery for intensive chest physiotherapy and incentive spirometry. He underwent coronary artery bypass grafting (CABG) using cardiopulmonary bypass and antegrade cold blood cardioplegia. Internal thoracic artery was used to graft left anterior descending artery (LAD), saphenous vein (SVG) was used to graft posterolateral branch of the right coronary artery, first diagonal and first obtuse marginal arteries. Access to arteries in the circumflex region was difficult due to shift of heart to the left side. The patient was weaned from the ventilator 14 hours after and CPAP helmet was immediately applied for a period of 48 hours continuously. After on it was applied at intervals for 5 days. The subsequent recovery was slow but progressive and the patient was discharged on the 11th post-operative day in good conditions.

Conclusion: We conclude that with attention to the specific features of the preoperative, intraoperative, and postoperative management, open heart procedures can be performed successfully on patients after pneumonectomy.

V7.

OMENTOPLASTY IN TREATMENT OF MEDIASTINITIS AFTER CARDIAC SURGICAL OPERATION

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Objective: With the introduction of sternotomy in the year 1957 as an operative access, poststernotomy mediastinitis is a rare but serious complication of cardiac surgery and is associated with high mortality. Conservative treatment with local debridement, irrigating-suction systems, and specific antibiotic therapy is sometimes inadequate. Omentoplasty is occasionally used for reconstruction and the treatment of various chest diseases.

Analysis of the results of treatment in mediastinitis, after cardiac surgical operation, with pediculated omentum.

Method: In 5 years period 30 patients (20 male/10 female), 0.4%-0.5% of the total sternotomy population, underwent 32 operative interventions for mediastinitis, defined as wound and sternal dehiscence with mediastinal pus and positive culture. Mean age was 67 years (55–79 years). The patients underwent cardiac-surgical interventions for CABG(16), CABG+MV(5), CABG+AV(4), MV(5) and AV(1). Refixations before omentoplasty were done in 10 patients. Reoperations for haemostasis and pericardial tamponade were done in 4 patients. Total dehiscence of the sternum was present in 18 patients. Partial resection of the sternum had to be done in 4 patients because of presence of free costal sequestrations. In 8 patients were done pectoral myoplasty for added stabilization of the thoracic wall.

Results: Reconstructive surgery was performed on average around 11th day(6-26) after cardiac-surgical operation. Perioperative death was in 3 patients(10%), not being related to mediastinitis. 4 patients had to be under prolonged mechanical ventilatory support. Reoperations for secondary skin dehiscence were done in 2 patients. Average post-operative hospitalisation of patients was 12 days. There were no observed residues of inflammation to the moment. Late epigastric herniation was present in 4 patients. In 3 of them had to be done patch-plasty of the abdominal wall, a year after omentoplasty.

Conclusion: Refixation of the sternum happens to be a large percentage of the causes of mediastinitis. mentoplasty is a highly effective operative intervention in patients, with poststernotomy mediastinitis and dehiscence, after a cardiac-surgical operative intervention. Total resection of the sternum is not required in patients with osteomyelitis.

V8.

THERE IS A MODERATE RISK TO OPERATE THE ELDERLY PATIENT ABOVE 80 YEARS OLD, IN CARDIAC SURGERY

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Objectives: The ageing process of the population in the Eastern Mediterranean countries is now approaching the industrial country curve. The number of patients with more than 75 year old is important in our daily surgical activity (16 %), and more than 80 y.o. (7 %) Their EuroSCORE is 4 regarding the age only.

Materials and Method: We reported our surgical experience with the elderly patients > 80 yo undergoing open heart surgery. Between 2009 and 2011, 615 patients underwent CABG in our institution, 65 of them have more than 80 year old (10.5 %), 52% male, 64% suffered from hypertension, 22% from diabetes, 40% tobacco, the mean EF of the left ventricle was about 50%, 78 % of the patients underwent isolated CABG, 20% underwent combined surgery for valve replacement, and 2% for carotid endarterectomy.

Results: 30% only of our patients profit from off-pump surgery, 34% need the use of inotropes in the immediate postoperative care .75% of them had been transfused with more than 02 units of blood, 33% of them presented an atrial fibrillation, 40% benefit from a fast track extubation inferior to 6 hours after there arrival to the CSU, 5 patients (7%) had been re-operated for bleeding, and 5 others need a prolonged respiratory assistance, 2 patients died (3%) the mean duration of CSU stay was 2 days and the total in hospital stay was 7 days.

Conclusions: Our study shows that CABG in the elderly (>80 yo) can be performed with a low risk of mortality and morbidity, even if it is done on pump.

V9.

HOW TO PREDICT EXCESSIVE BLEEDING AFTER ELECTIVE CARDIAC SURGERY: A ROLE OF ROTATIONAL THROMBOELASTOMETRY AND MULTIPLE ELECTRODE AGGREGOMETRY

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Introduction. Excessive bleeding after cardiopulmonary bypass (CPB) is risk factor for adverse outcomes after elective cardiac surgery (ECS). Differentiating between patients who bleed due to surgical issues, and those whose excessive chest

tube output (CTO) is due to coagulopathy, remains challenging. Bedside suitable tests to identify hemostatic disturbances and predict excessive bleeding are desirable. We evaluated the predictive value of two point-of-care tests on postoperative bleeding after ECS.

Methods. We enrolled 148 patients (105 male and 43 female) undergoing ECS in a prospective observational study. Patients were characterized as bleeders if their 24 hour CTO exceeded the 75th percentile of distribution. Multiple electrode aggregometry (MEA, with ASPI, ADP and the TRAP test) and rotational thromboelastometry (TEM, with ExTEM, HepTEM and FibTEM test), were performed at three time points: preoperatively (T1), during CPB (T2), and after protamine administration (T3). The primary endpoint was CTO and the secondary endpoint was administration of blood products.

Results. The best predictors of increased bleeding tendency were the tests performed after protamine administration (T3). At T3, patients characterized as bleeders had significantly lower MEA ASPI (median, 14 vs. 27 AUC, $p=0.004$) and ADP test values (median, 22 vs. 41 AUC, $p=0.002$) as well as TEM values expressed in maximum clot firmness after 30 min (MCF 30) for ExTEM (53 vs. 56 mm, $p=0.005$), HepTEM (48 vs. 52 mm, $p=0.003$) and FibTEM (8 vs. 11 mm, $p<0.001$) test. 24 hour CTO inversely correlated with both the MEA (ASPI test: $r=-0.236$, $p=0.004$; ADP test: $r=-0.299$, $p<0.001$), and TEM MCF 30 (ExTEM: $r=-0.295$, $p<0.001$; HepTEM: $r=-0.329$, $p<0.001$; InTEM: $r=-0.323$, $p<0.001$) test values.

Conclusion. Our study showed that MEA and TEM are useful methods for prediction of excessive bleeding after elective CS. In order to prevent excessive postoperative CTO, hemostatic interventions with timely and targeted blood component therapy according to MEA and TEM results should be considered.

V10.

ANTICOAGULATION IN VAD PATIENTS — BETWEEN SCYLLA AND CHARYBDIS. REPORTING A CASE WITH MASSIVE BLEEDING, FOLLOWED BY DEVICE THROMBOSIS

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Background: Anticoagulation regiment in patients, implanted with ventricular assist devices is important and still challenging task. Both bleeding and thrombosis are possible and bear the risk of severe complications and death.

Aim: The aim of this work is to report a case of patient implanted with Berlin Heart INCOR system (Berlin Heart GmbH, Berlin, Germany), who survived massive bleeding, followed by device thrombosis.

Case report: SMR, a 29-years-old patient, was implanted with INCOR system in February 2012, because of dilated cardiomyopathy. He was discharged on 36th postoperative day (POD). On 84th POD the patient was re-hospitalized,

because of driveline infection. An IV Teicoplanin, Amikacin and Rifampicin were started. On 106 POD, after routine insertion of central venous line condition of the patient deteriorates. He developed tachidyspnea. Hg drop to 4.0 g/dl. Massive pleural effusion was noted on the chest x-ray. Patient was immediately transferred in ICU and intubated. Chest tube was inserted and 900 mls of blood were drained. Numerous suction phenomena with several device stops were noted. An episode of VF, requiring defibrillations was also present. Because of signs of continuous bleeding CT was performed. It showed active bleeding from subclavian artery. The patient was rushed in the operation theater and thoracotomy was performed. Over 2000 ml of blood and coagulum were evacuated. Active bleeding from subclavian artery was found. Suture was placed. Condition of the patient was stabilized. He was extubated 18 hours after the procedure. Ninety-six hours after thoracotomy signs of device thrombosis were present (E22 alarm). After clinical discussion infusion with Thirofiban was started. For the next 24 hours signs of device thrombosis persisted. A decision for fibrinolysis was taken. A bolus of 10 U Reteplase was given. One hour later the alarms ceased and the thrombus was gone. No bleeding, besides recent thoracotomy was noted. No complications from CNS were observed. The patient recovered well. After the bleeding he received a total number of 12 units of PRBS and 7 units of FFP. The driveline infection was cured. The patient was discharge on 26 days after the bleeding (132th POD). Only mild grade of peroneus nerve paralysis with steppage gait were still present in the day of discharge. After 23 days he was transplanted. He recovered well and he was discharged.

Conclusions: In VAD patients a meticulous surgical technique is required, because of severe risk of bleeding. We showed that fibrinolysis could be safely performed VAD patients if required. Meticulous monitoring of the anticoagulation in VAD patients is mandatory.

V11.

SURGICAL ABLATION OF LONE ATRIAL FIBRILLATION

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Objective: Surgical ablation of atrial fibrillation (AF) is widely used concomitant procedure with mitral and other surgical interventions. The place of AF surgery as a stand-alone procedure remains to be determined.

Methods: Between 2004 and 2011 authors performed surgical ablation of lone AF in 15 patients. Patients were 57±8 years. 5 patients had permanent and 4 persistent atrial fibrillation. 3 patients had left atrial volume >200 cc.

Results: All patients were operated on with cardiopulmonary bypass. 9 patients underwent left atrial ablation and 6 biatrial ablation. 12 patients were operated on with bipolar radiofrequency and cryo ablaters and 3 patients underwent

cut-and-sew Maze procedure. One patient underwent right minithoracotomy and others midsternotomy. All patients survived. One patient suffered from stroke with complete neurologic recovery and another with right phrenic nerve paralysis. Both complications were related to performed or attempted minithoracotomy. Mean follow up was 29 months (range 1-72 months). Sinus rhythm was found at 11 patients of 13 (85%) at 6 month and 1 year after the ablation. All patients with sinus rhythm were free from antiarrhythmic medications. Warfarin was discontinued after 6 months in all sinus rhythm patients.

Conclusions: Surgical ablation of lone atrial fibrillation gives excellent freedom from AF, antiarrhythmic medications and Warfarin at mid-term follow up with acceptable operative morbidity.

V12.

LEFT ATRIAL ABLATION FOR ATRIAL FIBRILLATION: BOX LESION VERSUS EPICARDIAL PULMONARY VEIN ISOLATION

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Objective: Maze with a "Box lesion" around pulmonary veins (PV) is the gold standard procedure. Recently, we changed our technique of surgical ablation of atrial fibrillation (AF) from standard bilateral epicardial PV isolation to "Box lesion" with bipolar radiofrequency (RF) ablator. In this study we compare these techniques.

Methods: Between March 2009 and October 2011 we performed AF ablation in 70 patients by the "Box" technique around the PV, using a bipolar RF device. Patients were 64±10 years. 40 (56%) patients had persistent and 15 (22%) permanent AF; "Box" was made by connecting left atriotomy to the base of amputated left atrial appendage with two lines along transverse and oblique sinuses by epi- and endocardial application of a bipolar RF device. Left atrial isthmus was ablated by cryoprobe. Non-box group of 80 patients was operated by epicardial PV isolation with interconnecting lesions and left atrial isthmus lesion with the same devices.

Results: No complications were related to the ablation. Both groups were matched retrospectively to be statistically similar from all preoperative parameters. 63 (79%) patients in non-box group and 64 (92%) patients in box group were in sinus rhythm at discharge (p=0.05). 58 (74%) patients in non-box group and 65 (93%) patients in box group were in sinus rhythm at 1 year follow-up (p=0.044).

Conclusions: "Box lesion" is easier to perform and provides better freedom from AF than bilateral epicardial PV isolation with interconnecting lesions. We can explain it by better transmuralitity achieved by applying bipolar RF ablator only on one layer of atrial wall in contrary to epicardial PV isolation.

POSTER SESSION

Moderators: Assoc Prof Boian Baev

P1.

APICAL CANNULATION FOR ACUTE AORTIC DISSECTION – SOLUTION FOR LIFE

S. Micovic

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Introduction: Acute dissection of ascending aorta is a serious disease with high morbidity and mortality. Urgent operation is mandatory and can be very challenging even for experienced surgeons. Operative plan and tactics can sometime decide between life and death of patient. Establishing flow on CEC can be done using retrograde or antegrade arterial flow. In late sixties of last century surgeons used left ventricular apex for arterial inflow. This technique was abandoned and pushed away by raising popularity of common femoral and later, axillary artery. Seven years ago, we decided to revive this technique in our institution. Aim of this study is to observe results of this technique.

Materials and Methods: This is retrospective observational study. During period of 2005 till 2011 we operated 85 patients for acute aortic dissection. We are using DHCA as mandatory tactics in performing safe distal anastomosis. In the case of complicated arch surgery we used ACP. 37 patients were in cardiogenic shock due to pericardial tamponade. 9 patients had significant neurological deficit at the time of admission. All of them were operated within first six hours. 30 days mortality rate was 14%. Incidence of neurological deficit was 5%. We didn't notice any complication related to cannulation technique.

Discussion: Establishing antegrade "physiological" flow for this group of patients can be essential for survival. Using common femoral or axillary artery can be done, but with significant incidence of local and systemic complications. Sometimes establishing CEC must be done in urgent manner and left ventricle cannulation can be done much faster than any other. In our cohort of patients morbidity and mortality rate is acceptable and comparable with other published series.

Conclusion: Apical cannulation is safe, fast and reliable **Method** used for arterial inflow during CEC. It gives patient antegrade physiological flow and minimize risk of malperfusion. It can be used safely even for aortic arch surgery combined with ACP.

P2.

RECONSTRUCTION OF INNOMINATE ARTERY DURING SURGERY FOR ACUTE AORTIC DISSECTION – CASE REPORT

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Introduction: Acute dissection of ascending aorta is a serious disease with high morbidity and mortality. Urgent operation is mandatory and can be very challenging even for experienced surgeons. Intimal tear can be sometimes found within aortic arch. False lumen can obstruct flow in major neck vessels with devastating consequences. There is always a dilemma, whether or not to reconstruct neck branches during operation. Operative plan and tactics can sometime decide between life and death of patient. Aim of this study is to present a rare case of innominate artery reconstruction performed during surgery for aortic dissection.

Materials and Methods: This is a case report of 40 year old patient who was admitted with signs of acute aortic dissection type I. MSCT revealed two intimal tears, in ascending and aortic arch. Right subclavian artery was occluded and right carotid had subocclusion caused by propagation of false lumen. We established CEC using left ventricular apex. During cooling patient we reconstructed both carotid and subclavian artery with bifurcated graft. Aortic arch was reconstructed with ACP protection. For proximal tear we performed classical Bentall procedure. DHCA lasted 87 minutes. Patient was fully awake 5 hours after surgery and extubated 20 hours later. After two days in ICU he was transferred to ward and discharged home on day 7. Before discharge we performed control MSCT.

Discussion: Involvement of major neck vessels is not rare in aortic dissection. Usually it is enough to establish antegrade flow in proper lumen but preoperative occlusion or subocclusion of vessels is always big worry. Question is: What is going to happen with this vessel after we close false lumen? Neck vessel reconstruction can be safely performed during cooling patient to DHCA. This will not increase time of DHCA and low temperature is protecting brain during surgery. After graft implantation ACP is easy to use for further protection.

Conclusion: We believe this operative tactic is a good solution in the case of neck vessel occlusion or near occlusion by aortic wall dissection. It can be safely performed while patient is being cooled down to DHCA and combined with transventricular cannulation can be treatment of choice for this group of patients.

P3.

EARLY AND MID-TERM OUTCOME OF SURGICAL OUTCOME OF THE ASCENDING AORTIC REPLACEMENT IN ALBANIA

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Background: Surgical approach of various pathological forms of the ascending aorta is a challenge for the cardiac surgeon. We are presenting the initial experience of such a surgery in Albania.

Materials and Methods: We included 95 patients undergoing ascending aortic replacement by the same surgical team in different hospitals in Tirana, between January 2006 and June 2012. 17 patients presented acute aortic dissection type A and 2 chronic type A aortic dissection and 2 had separated intramural hematoma of the ascending aorta. 7 patients had associated aortic coarctation. Marfan disease was identified in 3 cases.

Results: The in hospital mortality was 3.1% (3 patients). Two of them had associated aortic arch aneurysm. One of them died due to malignant ventricular arrhythmias. The other patient died due to intraoperative aortic arch dissection. The third patient was a female with intramural hematoma of the ascending aorta and she died due to severe and uncontrollable bleeding. 32 patients underwent modified Bentall operation, 4 patients underwent HemiDavid procedure and 2 patient David procedure. One patient underwent coronary sinus reconstruction and replacement due to unruptured non coronary giant Valsalva sinus aneurysm. 56 patients underwent aortic valve replacement and ascending aortic replacement. Seven patients required mitral valve replacement and 3 mitral valve repair with a mitral ring. Two patients underwent ascending aortic replacement alone and CABG. One patient underwent total aortic arch replacement and 27 patients Hemiarch procedure. Circulatory arrest was performed in 28 patients associated with antegrade cerebral perfusion in two cases and retrograde cerebral perfusion in 26 patients. Simultaneous aortic coarctation repair and ascending aortic aneurysm was performed in 5 patients. The actuarial free reoperation survival at 1, 3 and 5 years resulted to be 98, 88 and 87%, instead the actuarial survival without re-operation resulted to be 89, 82 and 78%. The multivariate analysis revealed age >65 years (P=0.02), associated cardiac operation (P=0.005), NYHA functional class >=3 (P=0.03), LVEF <35% (P=0.01) and arch reconstruction (P=0.005) as strong predictors for poor overall survival in patients undergoing aortic replacement.

Conclusions: The surgical approach of the ascending aorta now is feasible with excellent outcome in Albania. Our early and mid term outcome are excellent and are very promising.

P4.

TWO RARE TYPES OF WILLIS CIRCLE'S VARIATIONS, IMPORTANT FOR UNILATERAL SELECTIVE CEREBRAL PERFUSION

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Objectives: Some variations of the circle of Willis (CoW) could lead to hypoperfusion during Unilateral selective cerebral perfusion (uSCP). The aim of present study was to report two very rare types of CoW variations found with CT angiography.

Methods: From May, 2005 to March, 2012 a total number of 500 CoW's were examined with either CT-angio or routine dissection for medico-legal reasons.

Results: During the study we found two very rare types of CoW, each with frequency 0.2 % (1 in 500).

- Type IIIB – absence of both right VA and AComA. If this circle is present severe hypoperfusion during unilateral SCP will be present in territories of left anterior, medial and posterior cerebral arteries.
- Type IV – absence of both right A1 and right left P1. If this circle is present severe hypoperfusion during unilateral SCP will be present in territories of both anterior, left medial and left posterior cerebral arteries.

Conclusions: Our present study supports the need of extensive preoperative examination and meticulous intraoperative monitoring of cerebral perfusion during uSCP.

P5.

EMERGENCY THROMBECTOMY OF THE AORTIC ARCH IN PATIENTS DIAGNOSED WITH "FLOATING THROMBUS"

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Objective: "Floating" thrombus in the major arterial vessels and the aorta is a rare occurrence, whose diagnostics is most often done during the course of cerebral, visceral and peripheral embolisation. We present to you four patients with floating thrombus in the aorta. In one of the cases the patient died before the operational intervention. In all patients laboratory data as well as hypercoagulability status were in norm.

Methods: Surgical access: Median sternotomy. Extracorporeal circulation was initiated through cannulation of the

left femoral artery and the right atrium via two stage cannula. Arteria carotis sinistra and truncus brachiocephalicus were clamped. Circulatory arrest was initiated, during which thrombectomy was performed.

Results: Postoperative management: Extubation of the patients – between 3 and 5 postoperative hour. Early postoperative period – no complications. The patients were discharged on the 5 postoperative day. Anticoagulation therapy: Sintrom (acenocoumarol) – target INR 3.0-4.0.

Conclusions: A lot of factors like atherosclerosis, trauma, malignant diseases and coagulopathies can be associated with mural thrombus in the aorta. In 90 % of the cases arterial embolisation is a result of cardiac disease. It can also be caused by ulcerating atherosclerotic plaques in the aorta and the carotid arteries. One of the main reasons can also be aortitis instead of atheromatose lesion. We are presenting a successful solution of diagnosed floating thrombus in the aortic arch by conducting emergency thrombectomy with ECC in three cases.

P6.

HYBRID PROCEDURE FOR PATIENT WITH AORTOECTASIA AND AORTIC COARCTATION- CASE REPORT

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Objective: Aortoectasia with a severe aortic regurgitation and coarctation of the descending aorta can be successfully treated with a hybrid strategy. Balloon expandable stents have been used to manage coarctation of the aorta, and in a second step Tyrone David reconstruction have been performed for reconstruction of the ascending aorta in to the normal morphology.

Method: TT. 22 year old patient with a history for a hypertensive disease, and a frequent chest pain and fatigue had been diagnosed for aortoectasia (7cm ascending aorta) with a severe aortic regurgitation and aortic coarctation by echocardiography and multislice compute red tomography

Result: In a first step patient got primary stenting with an immediate relief of the gradient. All antihypertensive medications were discontinued immediately. After 5 months patient got a surgery in a second step, preserving a nature aortic leaflets into the Dacron graft and with reimplantation of the both coronary arteries. Control transoesophageal echocardiography and CT scan showed normal morphology of the ascending aorta, no regurgitate jet trough the aortic valvula, no pressure gradient on the descending aorta.

Conclusion: In patients with coarctation of the aorta and aortoectasia, stent implantation may be a feasible and improved option to relieve the stenosis in a first step, allowing for surgical reconstruction of the aortic root. Patient had a normal quality of life after surgery, follow up period of 2.5 years.

P7.

ANOMALOUS CIRCUMFLEX CORONARY ARTERY AND BENTALL PROCEDURE

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Background: Anomalous Circumflex Coronary Artery is a common coronary anomaly. Its presence can complicate aortic valve and aortic root surgery.

Materials and Methods: A case of Bicuspid aortic valve and ascending aneurysm with anomalous circumflex coronary artery arising from ostium of the right coronary artery RCA was managed successfully with bentall operation. Literature review and technical points that were different in this case, are presented.

Results: Recommended steps for AVR, aortic root surgery and bentall operation includes:

1. Avoid catching the vessel by dissecting the vessel from the aorta. We found it easier to probe the vessel and identify score.
2. Downsizing of the valve to avoid external compression by the valve.
3. Graft extensions of the RCA coronary to avoid stretch of anomalous coronary and secondary compression by the valve.

Experiences with two previous cases suggest a variability in the course and such an anomalous vessel. Probing and palpitation maybe safer than dissection of the vessel.

Conclusions:

1. Variability in the course of this vessel exist.
2. Probing and palpitation of the vessel identify the exact course and help to avoid injury to the vessel.
3. The need for graft extension of the RCA bottom is easier to decide once the above maneuvers are practiced and the differences in size between the graft and aneurysm are considered.

P8.

ANOMALOUS ORIGIN OF ONE PULMONARY ARTERY BRANCH FROM THE AORTA. POSTOPERATIVE OUTCOME AND LITERATURE REVIEW

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Objectives. The aim was to review our experience with the surgical repair of the anomalous origin of one pulmonary branch from the aorta(AOPA).

Materials and Method. Between january 1991 and march 2001, 8 patients with AOPA underwent surgical correction. Three patients presented isolated AOPA. Five patients presented AORPA and 3 AOLPA. Implantation of the anomalous PA to the main PA trunk was performed by: 1)direct

anastomosis in 2 patients with AOLPA; II) interposition of a synthetic graft in one patient with AOLPA; III) employing an autologous pericardial patch in 2 patients with AORPA; IV) using an aortic flap in 3 patients with AORPA. The mean follow-up time was 37.7 months.

Results. One patient died postoperatively due to progressive heart failure unresponsive to inotropic support. Early postoperative pulmonary hypertension crisis was identified in another patient. Within 2 years after surgery, the residual gradient across the anastomotic site was significantly lower in patients undergoing correction employing adjunctive autologous tissues, 9.5 ± 4.6 mmHg versus 21 ± 7.2 mmHg ($p=0.045$), in patients undergoing direct anastomosis or interpositioning of a synthetic graft. Similarly, the Tc-99m scintigraphy demonstrated a significantly lower lung perfusion in patients undergoing AOPA implantation without employing autologous tissues for increasing the AOPA length 57 ± 5.6 (%) versus 72 ± 4.5 (%) ($p=0.011$).

Conclusion. The AOPA from the aorta is a rare but important entity, necessitating a scrupulous preoperative and intraoperative evaluation. The techniques employing autologous tissues for enlarging and lengthening the AOPA seem to be associated with better results in terms of postoperative restenosis.

P9.

COMPARISON OF COMORBID VARIABLES BETWEEN PATIENTS RECEIVING AND NOT RECEIVING SALICYLATE BEFORE CORONARY SURGERY

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Objective: The aim of this study is to compare the comorbid variables of patients receiving 100 mg enteric coated salicylate before coronary surgery with those of not receiving and to detect whether there is a significant difference.

Methods: Sixty one patients that underwent coronary bypass surgery between January 2011 and December 2011 at our clinic were investigated retrospectively. Thirty (49.2%) of them were receivers of 100 mg enteric coated salicylate and 31 (50.8%) were non-receivers, divided into 2 groups. The mean age of salicylate receivers was 61.33 years whereas it was 57.71 years in the non-receivers.

Results and Conclusion: Forty nine of these 61 patients (80.3%) underwent surgery with cardiopulmonary bypass and 12 of them underwent surgery on beating heart (19.7%). When comorbid factors were compared, no significant difference was observed between 2 groups ($p>0.05$). The distribution of the groups in terms of comorbid factors, salicylate use and cardiopulmonary bypass use was shown in the table.

P10.

HYBRID SURGICAL AND PERCUTANEOUS CORONARY REVASCULARIZATION - SINGLE CENTER EXPERIENCE

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Objective. A hybrid strategy combines the treatments traditionally available only in the catheterization laboratory with those traditionally available only in the operating room, to offer patients the best available therapies for any given set of cardiovascular lesions. Left internal mammary artery to left anterior descending coronary artery bypass grafting combined with percutaneous coronary angioplasty – hybrid procedure offers multivessel revascularization with minimal morbidity in high-risk patients – multimorbid, elderly and reoperated patients with type C or B lesions.

Methods. Between January 2007 and March 2012, 61 patients (42 male, 19 female, mean age 63.1 ± 14 years) underwent a hybrid revascularization procedure. Open chest left internal mammary artery (LIMA) harvesting, followed by percutaneous coronary intervention (PCI) for additional coronary lesions balloon angioplasty, was performed in 9 patients (14.7 %) and stenting in 52 patients (85%). We assessed by angiogram the graft patency in all patients during the PCI procedure. The clinical follow-up period was at least 6 months.

Results. No early and late deaths were observed. Clinical assessment was performed using Canadian Cardiology Society (CCS) angina grading scale, prior procedure it was 3 ± 0.7 versus 1.2 ± 0.9 ($P<0.001$) 30 days after the hybrid procedure. During hospital stay no MACE occurred. Angiographic check up showed patent LIMA-LAD graft in all patients. We showed good quality of anastomosis in 58 patients (95%). At 6 month follow-up, the rate of major cardiac events was 8 %. 9 patients (14.75%) developed restenosis after PCI, and no patient developed significant stenosis in site of LIMA-LAD anastomosis.

Conclusions. The hybrid procedure is a safe and effective **Method** for complete revascularization in selected patients. It allows performance of complete revascularization with minimization of surgical trauma. The key requirement for success is the collaboration between cardiac surgeons, vascular surgeons, and interventional cardiologists to obtain optimal patient outcomes.

P11.

ONE MORE REASON TO SHORTEN CATHLAB – CARDIAC SURGERY DISTANCE

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Objective: The objective of this case report is to show a rare potentially lethal complication of PCI among the variety of surgical problems related with this procedure. The case also illustrates the potential pitfalls in the management of coronary artery disease.

Methods: A 70 year old woman is admitted in our unit after elective PTCA complicated with broken and detached balloon catheter with one portion entrapped in the proximal chronic occlusion of LAD and second portion floating in the thoracic aorta. The patient underwent an open heart surgery procedure with retrieval of the catheter through arteriotomy of left main and proximal LAD on cardiopulmonary bypass followed by complete surgical revascularization.

Results: It was found that the balloon catheter was entrapped in totally chronically occluded proximal LAD and a long portion of it was free in the thoracic aorta, which could be removed through arteriotomy and endarterectomy of proximal LAD avoiding an aortotomy.

Conclusions: Complicated PTCA with entrapped and broken balloon catheter floating in the thoracic aorta need emergency open heart surgery. In the example of high aggressive interventional procedure this rare complication confirms the advantage of short distance between cathlab and cardiac surgery department.

P12.

EFFECT OF AORTIC VALVE REPLACEMENT ON LONG-TERM SURVIVAL PERFORMED ON PATIENTS WITH AORTIC INSUFFICIENCY IN WHOM LEFT VENTRICULAR FUNCTIONS WERE SEVERELY IMPAIRED

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Objective: In patients with significant left ventricular dysfunction, AR and prominent left ventricular dilation; aortic valve replacement is performed with a reasonable mortality rate of 8-15%. Five-year postoperative survival rates approach 75%.

Methods: Twenty nine patients with aortic insufficiency that were operated between April 2001 and May 2003, whose left ventricular functions were severely impaired, were included in this study. Preoperative and postoperative (1st, 12th, 36th and 60th months) echocardiographic examinations were recorded.

Results: Mean duration of follow-up was 62.9 months.

Four patients died of heart failure during this period. Remaining 25 patients are still under control. Thus, 5-year survival rate is 86%.

Conclusions: results of aortic valve replacement performed on patients with severely impaired left ventricular functions and left ventricular dilation are better than those of with medical therapy only.

P13.

INITIAL EXPERIENCE WITH PERCEVAL SUTURLESS VALVE

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Objective: Unlike traditional heart valve replacements, the Perceval Sutureless valve ensures easier surgical way severe calcified and small root aortic valve replacement

Methods: The valve's functional component is made of bovine pericardium and is mounted on a super-elastic alloy frame, which is self-anchoring, because no sutures are required, using the Perceval S results in reduced procedure time for aortic valve replacements. Including criteria for implanting this valve were –age over 65y, small root aorta, NYHA class III/IV, high surgical risk for complications. Transthoracic and transoesophageal echo were the basic exploration of the patient's valve.

Results: Clinical results in the first 2 patients implanted with Perceval S show a significant reduction in surgical procedural time for both isolated and complex aortic valve replacement with aortic cross-clamp times typically reduced by at least 50%. Perceval S leverages the reliability of gold-standard cardiac surgical results. The hemodynamic performance was outstanding with low pressure gradients and large effective orifice areas at 1 month follow-up period.

Conclusion: Perceval sutureless valve is a safe surgical procedure, with a reduced implanting time and good hemodynamic early performance

P14.

EXTRACORPOREAL MEMBRANE OXYGENATION FOR THE TREATMENT OF SEVERE POSTOPERATIVE CARDIAC OR PULMONARY FAILURE: VILNIUS HEART SURGERY CENTRE EXPERIENCE

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Objectives: Cardiac surgical patients with severe postcardiotomy shock refractory to medical treatment occasionally require mechanical circulatory support. The aim of our study was to review our experience of management of these patients.

Patients and Methods: We reviewed the records of 62 consecutive adult patients, 33 males and 29 females, who underwent 65 extracorporeal membrane oxygenation (ECMO) placements for the treatment of refractory cardiogenic shock or respiratory failure following cardiac surgery from January 1, 2008 to June 31, 2012 in our institution. Indication for cardiac ECMO was inability to wean from cardiopulmonary bypass or postcardiotomy heart failure refractory to medical treatment. Indication for pulmonary ECMO was respiratory failure with low arterial PaO₂ despite optimization of mechanical lung ventilation with 80% oxygen, high positive end-expiratory pressure and negative fluid balance.

Results: We implemented 63 veno-arterial ECMO for primary heart failure and 2 veno-venous ECMO for acute lung failure during this time frame. In 61(97%) cardiac ECMO cases thoracic cannulation for extra corporeal membrane oxygenation was used. The mean age of the patient was 61±14 (range 21-82) years, the average preoperative euroscore 7.3±3.0. All patients were on high doses of inotropes. Forty patients had an intraaortic balloon as initial device for hemodynamic stabilization. In 29 cases ECMO was initiated in operative room, in 33 cases – in intensive care unit. The average time on ECMO support was 126±98 (range 6 – 530) hours. Thirty seven (60%) patients were successfully weaned from the device and 19 patients (31%) survived to hospital discharge. Seven patients died during the first 24 hours after placing them on the device. Renal replacement therapy for acute renal failure was used in 14 cases.

Conclusion: ECMO is a valuable tool for the treatment of refractory cardiogenic shock or respiratory failure following cardiac surgery for patients with a high probability of death.

P15.

SUCCESSFUL TREATMENT OF SEVERE BLEEDING IN PATIENT AFTER CARDIAC TRANSPLANTATION WITH ROMIPLOSTIM (Nplate®)

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Objective: Acute rejection in cardiac transplant recipients is most common during the first postransplant month. Aggressive immunosuppressive therapy is frequently associated with profound bone marrow suppression leading to increase risk of infections and bleeding complications which required blood transfusions. Nevertheless transfusions of red blood cells, platelets concentrate and fresh frozen plasma are undesirable due to the presence of HLA antibodies which can further augment rejection reaction. Therefore alternative to allogenic blood products transfusions are needed in this patient population.

Methods: Prothrombin complex and fibrinogen as well as romiplostim (Nplate®) were administrated instead of

allogeneic blood products to a patient with cardiac transplantation and acute rejection with severe thrombocytopenia and leucopenia. Nplate® is a thrombopoietin receptor agonist indicated for the treatment of chronic immune thrombocytopenic purpura. Haemostasis was analyzed with routine clotting tests (PT, APTT, Fibrinogen, Platelets) and rotation thromboelastography (ROTEM®).

Results: A 34-year-old male patient with acute rejection after cardiac transplantation (3 ISHLT) and acute heart failure (NT-pro-BNP 28081 ng/ml) was treated with mycophenolate mofetil 3g, tacrolimus 10mg, methylprednisolone sodium 1g. Due to profound bone marrow suppression he developed severe thrombocytopenia with clinically relevant bleeding. The day after administration of Nplate®, platelets was risen from 16 X10⁹/l to 28 X10⁹/l and in four days reached 151 X10⁹/l. Control thromboelastography showed the normal range without hypo- or hypercoagulability. The rest of postoperative course was uneventful. Control examination two months later showed platelets 210 X 10⁹ / l, no evidence of heart failure, transplant rejection and thromboembolic complications.

Conclusions: This is the first successful "off label" use of Romiplostim in severe bleeding patients after cardiac transplantation. Nplate® is a good alternative to platelets transfusion.

P16.

HYDATID CYST OF THE LEFT VENTRICLE

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Introduction: Hydatid disease remains an important health problem in some regions of the world. Cardiac involvement of hydatid disease is uncommon, occurring in less than 2% of cases. When cardiac involvement is present, the cysts usually are intramyocardial in the interventricular septum or the left ventricular free wall.

Case presentation: A 54 year old woman was admitted for palpitations, chest pain and asthenia. Transthoracic echocardiogram, computed tomography and magnetic resonance revealed an intramyocardial cyst, 4x3 cm in size. During the operation, after median sternotomy and a normal pericardium, an hydatid cyst of the anterolateral wall of the left ventricle was found. It was removed and the cavity was sterilized and closed by capitonage. The patient underwent three courses of chemotherapy with albendazole after surgery. The patient did well and was discharged on the 9th postoperative day. No signs of the recurrence of the disease were present six years after the procedure.

Discussion and Conclusion: Heart echinococcosis is an uncommon disease. The most dangerous complication is cyst perforation. The diagnosis consists of revealing the cyst and its identification as echinococcus. It is based on serological reactions, ultrasound, X-ray, computerized tomography and/or magnetic resonance imaging.

Median sternotomy is the most common surgical access

to the heart. In the case of external heart echinococcus cysts intervention can be performed on beating heart, but with internal heart cysts, intervention should be performed under cardiopulmonary bypass. After incision, suction and chitin membrane removal, the residual cavity is irrigated with a germicide. Whereas cysts in other organs may be treated both by chemotherapy and surgical manipulations, in the case of heart echinococcosis it is impossible to administer antihelminthic medicines prior to surgery due to the risk of cyst wall destruction and rupture.

Echinococcal origin of a cardiac cyst should always be suspected in our daily practice.

P17.

COMPARISON OF OUR CASES THAT UNDERWENT SUCCESSFUL REMOVAL OF THE INFECTED PACE SYSTEMS WITH INFLOW OCCLUSION ON BEATING HEART IN TERMS OF INFLOW OCCLUSION TIME, DURATION OF POSTOPERATIVE INTENSIVE CARE UNIT STAY, AMOUNT OF BLOOD PRODUCTS TRANSFUSED AND DURATION OF HOSPITAL STAY

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Objective: Inflow occlusion technique as well as CPB may be used in the extraction of intracardiac pacemaker leads.

Methods: Between July 2007 and August 2011, six patients underwent removal of the infected pacemaker lead (PML) with vegetations causing endocarditis and of its related generator. Simultaneous permanent epicardial pacemaker implantation was also performed when necessary. All the surgical procedures were carried out by the same experienced surgical team. Postoperative course was uneventful for all patients.

Results: Mean postoperative intensive care unit stay was 2.3 days (range: 1-4 days). Mean hospital stay was 11.1 days (range: 6-21 days). The amounts of postoperative blood and blood products transfused were shown in Table 3. No early or late postoperative mortality was recorded. The mean IOBH time was 100±34 (range: 60-150) seconds. The mean duration of the postoperative follow-up was 23.8 months (range: 4-52 months). No late-period postoperative complication was detected.

Conclusions: Open intracardiac removal of retained pacing electrodes without use of CPB is a safe procedure without major complications.

P18.

SEVERELY CALCIFIED CHRONIC CONSTRICTIVE PERICARDITIS WITH HEPATIC CIRRHOSIS DIAGNOSED DURING THE LATE FOLLOW-UP PERIOD IN A CASE WITH OPERATED LUNG CARCINOMA

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Objective: Recently, chronic constrictive pericarditis (CCP) still remains as a significant pathology although its etiological factors change. In our country, tuberculosis is the most frequent etiological factor while the frequency of uremic, postoperative and neoplastic pericarditis cases increases in developed western countries.

Methods: Our case was a 45-year-old male who was admitted to our clinic with chief complaints of dyspnea, malaise and easy fatigability existing for 4 months. His past medical history was significant for a right pulmonary lobectomy operation due to stage IB (T2N0M0) squamous cell lung carcinoma, performed 4 years ago. His whole abdominal ultrasound done at another institution revealed ascites leading to a possible diagnosis of hepatic cirrhosis. But, no specific liver pathology was shown. He was then referred to our Cardiology Department. His transthoracic echocardiography (TTE) showed an increase in pericardial echogenicity predicted as calcification and thickened pericardium. Global hypokinesia was observed in the left ventricular wall and the ejection fraction was calculated as 30%. Moreover, mild pulmonary hypertension and mild mitral regurgitation were present. Whole abdominal ultrasound revealed that the diameter of the dilated portal vein was 16 mm and diffuse coarse granular pattern was seen in liver parenchyma, suggesting liver cirrhosis.

Results: As the operation technique, standard median sternotomy was performed. The pericardium covering aorta and pulmonary artery was freed first. Then, pericardium covering right and left ventricles and left pulmonary artery was planned to be uncovered. Next step included freeing of pericardium covering pulmonary veins, right atrium and finally venae cavae. Since the pericardium covering left ventricular apex and lateral wall was severely calcified and adhered, cardiopulmonary bypass (CPB) was established. Postoperative period was event-free and he was discharged on 7th postoperative day. TTE performed on the day of discharge and in the 2nd month showed that left ventricular ejection fraction reached 45% and thickened pericardium was almost totally eliminated.

Conclusions: The nature and extension of the underlying disease play important roles in defining the indication for pericardiectomy in cases with CCP and malignancy. CPB is obviously significant in CCP surgery for some cases. Recently, pericardiectomy –which constitutes the primary surgical therapy of CCP– can be safely performed in many centers. If necessary, CPB is available for safer procedures.

P19.

OUR APPROACH TO A CASE WITH JUGULAR VENOUS ECTASIA

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Objective: Venous abnormalities range from isolated cutaneous varicosities to ectasia, localized coarse masses or complicated lesions. The word “ectasia” or “phlebectasia” stands for abnormal dilation of a venous structure externally. Its characteristic is the absence of tortuosity. Most common form of ectasia is jugular venous ectasia. Sporadic cases are available in literature. Recently, with the advances in non-invasive diagnostic tools this pathology of fusiform venous dilation is more commonly identified.

Methods: Our case was a 45-year-old female. She was suffering from numbness and weakness of her both upper extremities for one year. Her multiplanar and multisequential cervical vertebra MRI was obtained at another institution. Paracentral protrusion of the cervical disc at every intervertebral space, compression of the dural sac at some levels and mild constriction of the neural foramina were identified. Moreover, prominent dilation of the right jugular vein was detected and she was referred to our outpatient clinic.

Results: Color Doppler ultrasonography of the carotid system showed normal wall thickness in the bilateral carotid systems with no hemodynamic changes consistent with stenosis. But, anatomical variation as ectasia of the right jugular vein was identified. Her past medical history was free of upper mediastinal irradiation, trauma, associated congenital malformation or persistent increase in central venous pressure; thus leading us to the idiopathic origin. She was evaluated in our clinic's surgical council and oral salicylate of 100 mg per day and, as long as it stays asymptomatic, annual Color Doppler control were recommended.

Conclusions: As in our case, ultrasonography and Color Doppler imaging show high specificity in diagnosis of jugular venous ectasia (JVE), which is seen more commonly on the right. JVE is generally considered as a benign pathology and conservative follow-up is usually sufficient. Conditions requiring surgery were identified as thrombus formation, perforation, progressive dilation becoming symptomatic and cosmetic deformity.

P20.

THE INCIDENCE OF POSTOPERATIVE ATRIAL FIBRILLATION AMONG CORONARY ARTERY DISEASE PATIENTS WITH CHRONIC OBSTRUCTIVE LUNG DISEASE USING BETA BLOCKER PREOPERATIVELYB. Ozpak¹, O. Tetik², U. Yetkin³, I. Yurekli³, K. Ergunes³, O. Gokalp³, L. Yilik³, A. Gurbuz³¹Cardiovascular Surgery Specialist, Tekirdag State Hospital, Turkey;²Department of Cardiovascular Surgery, Bursa YIH, Turkey; ³Department of Cardiovascular Surgery, Izmir Katip Çelebi University Atatürk Training and Research Hospital, Turkey

Objective: Atrial fibrillation (AF), is the most common type of arrhythmia seen after coronary artery bypass grafting (CABG). Some risk factors were identified to define development of AF after CABG surgery. Chronic obstructive lung disease is one of them.

Methods: Patients undergoing CABG surgery between February 2006 and July 2009 at our clinic were included in this study. A total of 108 patients were divided into 2 groups: 54 patients receiving β -blockers (Group 1) and 54 patients not-receiving β -blockers (Group 2) preoperatively.

Results: Twenty-four patients (44.4%) in Group 2 and 23 patients (42.5%) in Group 1 had a past medical history significant for chronic obstructive lung disease.

Conclusions: Among β -blocker receivers, existence of atrial fibrillation and chronic obstructive lung disease were not significantly correlated ($p>0.05$).

P21.

THE ROLE OF ECHOCARDIOGRAPHY IN THE DIAGNOSIS OF THE INFECTED PACEMAKER SYSTEM OF OUR CASES THAT UNDERWENT SUCCESSFUL REMOVAL OF THE SYSTEM WITH INFLOW OCCLUSION ON BEATING HEARTU. Yetkin¹, O. Gokalp¹, I. Yurekli¹, T. Goktogan¹, L. Yilik¹, M. Yesil², A. Gurbuz¹¹Department of Cardiovascular Surgery, Izmir Katip Çelebi University Atatürk Training and Research Hospital, Turkey; ²Cardiology Clinic, Izmir Katip Çelebi University Atatürk Training and Research Hospital, Turkey

Objective: Intracardiac devices are increasingly used to correct hemodynamically dysfunctional valves and electrophysiologic abnormalities. The prevalence of infection of permanent pacing material ranges from 0.13 to 19.9% among patients according to published series.

Methods: Between July 2007 and August 2011, six patients underwent removal of the infected pacemaker lead (PML) with vegetations causing endocarditis and of its related generator. Simultaneous permanent epicardial pacemaker implantation was also performed when necessary. The initial diagnosis of PML infection with vegetation was confirmed by the examinations of Departments of Cardiology and Infectious Diseases.

Results: Transthoracic echocardiography (TTE) was used for the diagnosis of the vegetations due to lead endocarditis, primarily. In addition, the diagnosis was confirmed with transesophageal echocardiography (TEE). TTE findings of our patients were presented in detail in Table 1 [(Figure 1) and Video movie 1: This video section shows two different vegetations in right atrium]. Absence of PFO and atrial septal defect was proven by either TTE or TEE. Six cases were all operated electively. All the surgical procedures were carried out by the same experienced surgical team. Transthoracic echocardiographic examination was done after the operation confirming the total extraction of the intracardiac material. Echocardiographic examinations of all patients were held on the 1st postoperative day and after the first month, showing no intracardiac foreign material.

Conclusions: Lead endocarditis have been associated with high morbidity and mortality rates. Surgical removal of the infected endocavitary pacing lead has been perceived as the only way to guarantee a successful outcome.

P22.

SURGICAL TREATMENT OF GIANT FALSE ANEURYSM OF LEFT VENTRICLE – A CASE REPORT

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Background: Left ventricle free wall rupture is one of the leading causes for death in patients with AMI. Its frequency is up to 11%. While the acute form is known and 100% lethal the chronic form or so called false aneurysm are rare and their natural history is unclear.

Aim: The aim of present study is to report a patient with giant false aneurysm of the left ventricle, treated surgically.

Case report: DMS, a 66-old male, survived infero-lateral AMI in May, 2011 with PCI and ICS of RCA. Two weeks later he survived second AMI. On April 20th, 2012 a large pseudoaneurysm of left ventricle was diagnosed in another institution. The patient was transferred in our institution with NYHA class IV heart failure. Echo showed giant false aneurysm of left ventricle free wall with size 4.3 cm and thrombosis. LVEDV was 503 ml, while LVESV was 339 ml. EF was 32%. Valves were intact. Coronarography revealed LAD with 99% proximal and 70% stenosis in middle segment. RCx – occlusion. RCA – 40% in-stent restenosis, 70% crux stenosis and 0% stenosis of RPD. Patient was operated with euroSCORE 60%. On vented fibrillating heart CABG x 2 [LAD/LIMA; RCA/s.v.g] and LV restoration were performed. The aneurysm was excised and large amount of thrombi were evacuated. LV was restored with 3/0 prolene and felt strips. Patient was weaned from CPB with Dopamine. He was extubated on 10th postoperative hour. Inotropic support was weaned on POD 5. Patient recovered and he was discharged on POD 8. Echo

revealed EF of 35% and severe reduction of LV dimensions – LVEDV – 160 ml, LVESV – 105 ml.

Conclusions: We report a case with successful surgical management of patient with giant false aneurysm. Since the pseudo aneurysms of left ventricle are casuistically rare their natural history is unknown and surgical management seems the best option for this patients.

P23.

CARDIAC SURGERY IN OCTOGENARIANS: POSTOPERATIVE MORBIDITY AND MORTALITY

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Objective: The purpose of the study is to evaluate the early postoperative morbidity, mortality in patients aged above 80 years after cardiac surgery.

Methods: the medical records of 83 consecutive octogenarians who had had cardiac operations between 2010 and 2011 were reviewed. The preoperative risk evaluation, length of postoperative mechanical ventilation, support of circulation and kidney function, as well as the length of stay in intensive care unit (ICU), readmission in ICU and mortality rate were evaluated.

Results: the preoperative Euro Score of octogenarians was 14. Beside of the age this high score was determined by the concomitant disorders. The octogenarians had postoperative mechanical ventilation 2.5 ± 6.1 days, from 8 hours to 36 days; 34% of them had pharmacological support of circulation averaged 6.8 days. Nine patients developed acute kidney failure and were treated with renal replacement therapy averaged 4.7 days. Ten patients had delirium. After discharge of ICU 8 patient were readmitted with signs of respiratory failure. There were 9 deaths during the treatment in ICU.

Conclusion: in most octogenarians cardiac operations are successful with lengthen stay in ICU, increased morbidity and mortality.

P24.

RECENT EXPERIENCE OF PERICARDIECTOMY FOR CONSTRICTIVE PERICARDITIS

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Objective: Natural history of constrictive pericarditis patients is grave, and they all succumb to right heart failure within months to few years following diagnosis. Surgery is

known to alleviate symptoms and to prolong lives of most patients. In the past, surgical pericardiectomy was associated with high operative mortality.

Methods: We reviewed our results with increased surgical experience and experienced post-operative management. From 2005 to 2011, 26 patients underwent pericardiectomy in our department. The diagnosis was confirmed using echocardiography and Rt. heart catheterization, and supported by CT scan and/or MRI. In most patients the diagnosis was 'Idiopathic'. In two patients the etiology was Post Pericardiotomy Syndrome - one and three years following previous AVR. There was one case of Purulent Chronic (Calcified) Pericarditis. All patients suffered from symptoms and signs of right with or without left heart failure (NYHA III/IV). In four patients the procedure was performed in concomitance with other open heart procedure. Except from these - only two cases were performed using cardiopulmonary bypass (CPB).

Results: There was no in-hospital mortality. There were two cases of post operative revisions for bleeding. There were 2 late deaths: one patient died due to metastatic Gastric Carcinoma, aspiration pneumonia and sepsis, the second patient who underwent concomitant Tricuspid Valve Annuloplasty died 7 months following surgery due to unresolved Rt. heart failure. At mean follow-up of 38 ± 24 months (range 1 to 71 months) 20 patients are in NYHA class I-II (83%) and 4 are in NYHA class III/IV (17%). Early and late ECHO follow up show complete relief of constriction in all patients.

Conclusion: Recent surgical results provide good early and late outcomes after pericardiectomy.

P25.

CURATIVE RESECTION OF MYSTERIOUS MASS IN THE RIGHT VENTRICLE DIAGNOSIS IMPOSSIBLE?

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Objective: To present the case of a young woman with successfully resected but still undiagnosed right ventricular formation causing acute tricuspid stenosis and heart failure.

Methods: A 45 year old woman was admitted emergently

in our unit with a short history of rapidly progressing symptoms of heart failure due to acute tricuspid stenosis. Echocardiography demonstrated a large mass in the right ventricle, almost completely obstructing its cavity, completely fixing the tricuspid valve and protruding into the right atrium. The patient was emergently operated on, the mass was resected and tricuspid valve replaced. Extensive histological and imaging studies were made and a multidisciplinary team was engaged with diagnostic and therapeutic process.

Results: After a prolonged period of recovery and different therapeutic strategies the patient is discharged from hospital and observation continued in an outpatient manner. Three months after surgery, currently the patient is completely symptom free. Final diagnosis still remains unclear.

Conclusion: The surgical procedure was timely and life-saving and so far proves to be radical but despite the multidisciplinary approach and the information from various imaging and histologic studies we could not reach a clear diagnosis and the case remains open.

P26.

CASE REPORT: MASSIVE PULMONARY THROMBEMBOLISM PRESENTING AS SYNCOPÉ

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Objectives: The diagnosis of pulmonary embolism continues to be difficult because of the varieties of symptoms and signs in presentation. Syncope is an easy clinical symptom to detect but it has various etiologies. Syncope as a presenting symptom of pulmonary embolism has proven to be a clinical challenge and the correlation is perplexing to make.

Case report: We present the case of a 38-year-old man with massive pulmonary thrombembolism-induced Syncope. The patient had no other clinical symptoms of pulmonary thrombembolism. We review the pathophysiology, diagnostic considerations and surgical treatment.

Conclusion: Every syncopal event which presents at an emergency department should be considered in differential diagnostic aspect as eventual pulmonary thrombembolism.