SUPPLEMENT

ABSTRACTS OF THE SPCCTV 4D VISIONS 2022

CONGRESSO SPCCTV

4D VISIONS 22

CARDIAC SURGERY

NURSING CARE PROTOCOL OF LEFT VENTRICULAR ASSIST DEVICE DRIVELINE EXIT-SITE

Viviana Gonçalves (Portugal)[1]; Helena Cardoso (Portugal) [1]

[1] Centro Hospitalar e Universitário São João

Keywords: *Left Ventricular Assist Device, Driveline infection, Driveline exit-site, Protocol, Nursing Care*

AIM

Implantation of left ventricular assist devices is becoming more frequent with the development of mechanical circulatory support technology and the scarce number of organs available for heart transplantation, demonstrating that these devices may improve survival, functional capacity, and quality of life. However, it can cause serious complications such as driveline infection, causing significant morbidity and mortality. Nurses are uniquely positioned to improve driveline management, disrupting the chain of infection. Driveline exit-site care is crucial for the prevention of infections, although there are no gold-standard of care. Our purpose is that all patients have a uniform care to driveline exit-site, ensuring the healing process and prevention of infection.

In Portugal, experience with this device is scarce, as there is still not a significant number of implanted patients. At Centro Hospitalar e Universitário de São João, no device was implanted, but there is a patient who is followed up by the team of this hospital. As such, it became imperative to develop this protocol in order to treat this patient and implement it in future patients. In addition, it can be developed at a national level in order to standardize nursing care in this area, with all the associated health gains.

METHOD AND RESULT

Literature review to develop nursing care protocol of driveline exit-site, supported by the best evidence based scientific research in which we are able to identify all the recommendations to care of the driveline exit-site, mainly the dressing material.

This review reveals that there is no standard care for infection prevention. Despite that, a protocol of care based on prevention of infection, nursing care and comfort of the patient was developed with the dressing material adjusted to what is available in our country.

CONCLUSION

With the increasing number of patients with this device, nurses are challenged to develop interventions that aim to ensure the quality and safety of care. This protocol allows the standardization of nursing care to driveline exit-site, leading to the prevention of driveline infections through the improvement of the healing process.

AORTIC COMMISSUROPLASTY AS A BAILOUT PROCEDURE TO ACCOMMODATE A SUTURELESS BIOPROSTHESIS

António Canotilho (Portugal)[1]; André Soeiro (Portugal) [1]; Filipe Soares (Portugal)[1]; Pedro Correia (Portugal)[1]; Gonçalo F. Coutinho (Portugal)[1]; Pedro E. Antunes (Portugal)[1]; David Prieto (Portugal)[1]

[1] Serviço de Cirurgia Cardiotorácica e Transplantação de Orgãos Torácicos do Centro Hospitalar e Universitário de Coimbra

Keywords: *Aortic valve stenosis, Sutureless bioprosthesis, aortic commissuroplasty, pacemaker implantation*

INTRODUCTION

Due to the drive toward transcatheter aortic valve replacement, cardiac surgeons are continuously challenged to collect data and evidence to prove outcomes and benefits of aortic valve surgery. Sutureless bioprostheses have been proposed for replacing calcified stenotic native valves within small aortic roots of geriatric patients with significant comorbidity. Their use seems as safe as that of stented bioprostheses and enables significantly reduced length of surgery. Low transprosthetic pressure gradients have been measured. Because of the radial force of its self-expandable nitinol stent, aortic annulus interruption could be a relative contraindication to sutureless bioprostheses use. The permanent pacemaker implantation and paravalvular leak rates after sutureless aortic valve replacement vary widely.

AIMS

We report a case of a 65-year-old diagnosed with symptomatic severe aortic stenosis. The patient to submitted to aortic valve replacement through a J-upper sternotomy.

METHOD

Intraoperatively, the aortic root and proximal part of the ascending aorta were found to be heavily calcified, and the option was to replace the aortic valve with a sutureless prosthesis. After excision of the aortic valve the largest sizer of the prosthesis was found to be suitable and a Sorin Perceval Plus XL prosthesis was prepared and implanted. However, after deploying the valve it was possible to observe a gap in the commissure between the left and right coronary sinus. Therefore, it was decided to retrieve the prosthesis and close the defect with an U-stich supported with pledgeted felts in each side of the commissure (commissuroplasty). After reimplanting the sutureless valve, no residual defect was found and the aortotomy was closed. The patient was weaned from cardiopulmonary bypass with minor inotropic support. No regurgitation nor significant gradient was obtained intraoperatively by transesophageal echocardiogram. The remaining hospitalization was complicated with 3rd degree AV block with need for pacemaker implantation. The patient was discharged on the 11th post-operative day.

RESULTS & CONCLUSION

Despite the rarity of the case, we presented this case to demonstrate a set of surgical alternative approach to avoid perivalvular leak or significant gradient during implantation of sutureless bioprosthesis. The sutureless bioprosthesis was easily and successfully removed and re-implanted, although it is designed for single use only. This fact allowed reuse of the same intact prosthetic valve and there was no need for another prosthesis.

LONG-TERM FOLLOW-UP AFTER AORTIC VALVE REPLACEMENT WITH TRIFECTA: A SINGLE CENTER RETROSPECTIVE COHORT

Cândida Gonçalves (Portugal)[1]; Rui Cerqueira (Portugal)[1,2]; Joana Araújo (Portugal)[1]; Soraia Moreira (Portugal)[1,2]; Pedro Palma (Portugal)[1,3]; Jorge Almeida (Portugal)[2;] Mário J. Amorim (Portugal)[2]; Paulo Pinho (Portugal)[2]; ílvia O. Diaz (Portugal)[1]; António S. Barros (Portugal)[1]; André P. Lourenço (Portugal)[1,4]; Francisca Saraiva (Portugal)[1]; Adelino Leite-Moreira (Portugal)[1,2]

[1] UnIC@RISE, Department of Surgery and Physiology, Faculty of Medicine of the University of Porto
[2] Department of Cardiothoracic Surgery, Centro Hospitalar Universitário São João
[3] Department of Cardiology, Centro Hospitalar Universitário São João
[4] Department of Anaesthesiology, Centro Hospitalar Universitário São João

Keywords: *Aortic Valve Replacement, bioprostheses, St Jude´s Trifecta*

INTRODUCTION

St. Jude's Trifecta (TF) bioprostheses were adopted at most centers due to their unique design and hemodynamic performance. However, concerns regarding durability have been raised and long-term follow-up results (≥10 years) are scarce in the literature.

AIMS

To report hemodynamic performance as well as early and long-term results of TF valve.

METHOD

In this longitudinal, single-center study, consecutive patients that underwent surgical aortic valve replacement with TF, from June 2011 to June 2019, were included. Pre-, intra- and post-operative data, including routine and first outpatient ambulatory postoperative transthoracic echocardiogram (TTE) (median 4 months) were collected. Hospital mortality was defined as in-hospital or within the first 30 days after surgery. Survival and need for reoperation were accessed in December 2021. Median follow-up was 4 years and maximum was 11 years. Kaplan-Meier method was used for time-to-event outcomes (all-causes mortality and need for reoperation).

RESULTS & CONCLUSION

We included 1084 patients, 54% being male, with a mean age of 74±8 years. Surgery priority was elective in 840 (78%) of cases. Most patients received a TF prothesis of size 23 (35%), followed by size 21 (30%). There were 563 (52%) multiple procedures, mostly coronary artery bypass grafting (n= 256/563 [23,7%]). Bypass and clamping times were 86±31 minutes and 62±22 minutes, respectively for isolated procedures, and 143±27 minutes and 100±40 minutes, respectively, for multiple procedures. Hospital mortality was 6%. Excluding these patients, cumulative survival at 1-, 3-, 5- and 10-years, were, respectively, 96%, 89%, 78% and 52%. There were 27 patients who needed reoperation: 16 due to endocarditis, 5 due to structural valve deterioration (SVD) and 6 due to non-structural valve dysfunction. Freedom from reoperation at 1-, 3-, 5- and 10- years were of 99%, 98%, 98% and 95%, respectively. At follow-up TTE (n=995), transvalvular mean gradient was 11±4 mmHg and the effective orifice area mean was 2.1±0.5 cm2. Patient-prosthesis mismatch occurred in 79 (9.1%), being severe in 8 (0,9%) cases.

Our findings confirm the satisfactory hemodynamics and safety profile of TF bioprostheses. Long-term results are comparable with published TF series and there seems to be no particular sign of adverse valve-related events in our population.

ESTABLISHING AN AORTIC VALVE REPAIR PROGRAM: SINGLE-CENTER 15 YEARS EXPERIENCE AND META-ANALYSIS

João Mascarenhas (Portugal)[1]; Rui Cerqueira (Portugal)[1,2]; Maria Rodrigues (Portugal)[1]; Mário Amorim (Portugal)[1,2]; Cândida Gonçalves (Portugal)[1]; Joana Araújo (Portugal)[1]; Paulo Pinho (Portugal)[2]; Jorge Almeida (Portugal)[2]; António Barros (Portugal)[1]; André Lourenço (Portugal)[1,3]; Francisca Saraiva (Portugal)[1]; Adelino Leite Moreira (Portugal)[1,2]

1 - UnIC@RISE, Department of Surgery and Physiology, Faculty of Medicine of the University of Porto
2 - Department of Cardiothoracic Surgery, Centro Hospitalar Universitário São João
3 - Department of Anaesthesiology, Centro Hospitalar Universitário São João

Keywords: *Aortic Valve Repair, Reoperation, Survival*

INTRODUCTION

Most evidence of aortic valve repair (AVR) comes from high-volume centers of excellence and reproducibility of these techniques in low-volume programs is uncertain.

AIMS

The main goal of this study was to systematically summarize the mid- to long-term outcomes of AVR and to compare our single-center (SC) experience results with pooled published data (PPD).

METHOD

A literature review was performed using PUBMED and ISI-Web of Knowledge databases. Studies with initial sample size above 200 patients, mean or maximum follow-up ≥ 5 or 10 years, respectively, and that reported mortality and/or reoperation outcomes were included. Pediatrics disease, endocarditis or aorta coarctation papers were excluded. Individual patient data for survival and freedom-from-reoperation was extracted from published Kaplan-Meier curves, using GetData Graph Digitizer and combined using Guyot's algorithm to pool data. These data were compared with our SC AVR series which included adult patients submitted to AVR between 2007 and 2020 followed up until December 2021. Data was collected from center retrospective databases and national registry (all-cause mortality).

A total of 1729 titles were identified, with 29 eligible for this analysis. Studies' sample size ranged between 198 and 1015, totaling 12678 patients. These patients were compared to our SC cohort (n=122). Mean age was similar (PPD:52 vs. SC:51) and the majority of patients were male (PPD:76% vs. SC:80%, p=0.32). Marfan Syndrome and aortic dissection were more prevalent in PPD than in SC (15% vs. 5% and 13% vs. 4%, respectively, p<0.01 for both). The SC patients presented more frequently bicuspid aortic valve than PPD (41% vs. 32%, p=0.03). Regarding surgical techniques, aortic valve sparing (Yacoub and David) were more used in PPD than in SC (19 vs 3% and 71 vs 13%, respectively, p<0.01 for both), while SC patients underwent aortic annuloplasty more frequently (78 vs. 11%, p<0.01). Early mortality (reported by 28 studies) occurred in 2% of patients vs. 0% (SC). The cumulative survival rates at 1-, 5-, 10-years of follow-up were 99 vs. 96%, 95 vs. 92% and 79 vs. 82% for SC and PPD, respectively (Log-rank, p=0.46). Freedom-from-reoperation rates at 1-, 5- and 10-years were 99 vs. 98%, 98 vs. 94%, 78 vs. 89%, for SC and PPD, respectively (Log-rank, p=0.45).

RESULTS & CONCLUSION

AVR is a durable and effective surgery and a viable alternative to standard replacement in a selected population. It is a safe procedure, with a low rate of acute complications, which allows to establish a program even in lower volume centers.

REACHING CONSENSUS ABOUT END-LIFE CARE FOR PATIENTS WITH VENTRICULAR ASSIST DEVICE: AN INTEGRATIVE REVIEW

Joana Silva (Portugal)[1]; Mariana Batista (Portugal)[1]; Joana Marrana (Portugal)1; Clara Vital (Portugal)[1]; Conceição Trigo (Portugal)[1]; José Fragata (Portugal)[1]

1 - Centro Hospitalar Universitário Lisboa Central. Hospital de Santa Marta

Keywords: *ventricular assist device, deactivation, interdisciplinary, end-of life*

INTRODUCTION

Ventricular assist devices (VADs) have become common and are increasingly used for patients with advanced heart failure (HF)[1, 2]. Still, many patients with VADs experience end-of-life with the device still working. This scenario is unavoidable with destination therapy and in situations of bridge-to-transplant complicated with a catastrophic event.

AIMS

The purpose of this integrative review is to systematically evaluate research studies focused in facilitating interdisciplinary preparation for VAD deactivation.

METHOD

Researching in the EBSCO Host® database (CINAHL Complete, MEDLINE Complete, Nursing & Allied Health Collection: Comprehensive, Cochrane Central Register of Controlled Trials e MedicLatina) from 2012 to 2022 with the keywords 'ventricular assist device', 'deactivation', 'withdrawal', 'device removal', 'interdisciplinary' and 'end-of-life', from which 28 articles were fully reviewed.

The ethical questions associated with the implanted cardiac-assist devices deactivation have drawn sustained attention from health care teams.[3 ,4, 5, 6, 7, 8, 9]

The International Guidelines for Mechanical Circulatory Support published in 2013, dedicates some words to advance care planning, palliative care collaboration, and the option of deactivation.[10]

The International Society of Heart and Lung Transplantation recommends that a palliative care team should be involved prior to VAD implantation to facilitate discussion of end-of-life and to establish an advanced directive. [7, 11, 12]

Medical literature also contains several surveys of various individuals' approaches regarding VAD deactivation, stating different perspectives that support an ethical debate, including the views of patients, [2, 4, 13, 14, 15] families [2, 4, 13, 16, 17] health care professionals [2, 4, 18, 19, 20, 21] and representatives of the device. [7]

Schaefer and his associates published an article in 2014 focused in building a checklist that might be helpful in facilitating interdisciplinary preparation for VAD deactivation. [22]

Priorities include effective communication with the family and among teams, imperative palliative care consultation, and coordination of interdisciplinary care at the bedside. [4, 9, 22]

RESULTS & CONCLUSION

Device deactivation remains a complex issue within the care of patients with advanced HF but it should be considered part of the process of care itself. [23]

Removing devices may be considered for pain and distress limitation purposes,[6] as well as respecting both survival and quality of life [4, 9, 24] when patients explicitly manifested their will prior to the VAD implantation.

Providers who care for patients with a VAD have acknowledged that end-of-life is an important area of concern, and they try to support their practice on a check-list with advanced directives, shared decision-making and multidisciplinary approach.

AORTIC VALVE SURGERY WITH STENTED VERSUS STENTLESS BIOPROSTHESIS IN PATIENTS WITH INFECTIVE ENDOCARDITIS

Francisca Sousa (Portugal)[1]; Rui Cerqueira (Portugal)[1,2]; Francisca Saraiva (Portugal)[1]; Bruno Silva (Portugal)[1]; Joana Araújo (Portugal)[1]; Cândida Gonçalves (Portugal)[1]; Pedro Palma (Portugal)[1,3]; Jorge Almeida (Portugal)[2]; António S. Barros (Portugal)[1]; André Lourenço (Portugal)[1,4]; Mário J. Amorim (Portugal)2; Paulo Pinho (Portugal)[2]; Adelino Leite-Moreira (Portugal)[1,2]

1 - UnIC@RISE, Department of Surgery and Physiology, Faculty of Medicine of the University of Porto
2 - Department of Cardiothoracic Surgery, Centro Hospitalar Universitário São João
3 - Department of Cardiology, Centro Hospitalar Universitário São João
4 - Department of Anaesthesiology, Centro Hospitalar Universitário São João

Keywords: *Infective endocarditis, aortic valve replacement, Bioprosthesis*

INTRODUCTION

There is still no gold-standard prosthetic valve substitute for infective endocarditis.

AIMS

To compare outcomes after aortic valve replacement (AVR) with a stented (Trifecta-TF) versus a stentless bioprosthesis (Freedom Solo-FS) in patients with active or previous infective endocarditis (IE).

METHOD

Single-center, retrospective, observational and comparative study including patients with IE who underwent AVR with the TF or FS bioprosthesis between June 2009 and December 2019. Survival and re-intervention were checked in December 2021. The median follow-up time in the stentless and stented groups was 7 and 5 years, respectively. Median (minimum and maximum) and relative frequencies were used to sample characterization and comparison. Hospital mortality was defined as in-hospital death or within 30-days after AVR. Kaplan-Meier method was used for time-to-event outcomes (all-causes mortality and reoperation).

RESULTS

Eighty-two patients were included, 32.9% FS and 67.1% TF. The median age of FS patients was 64 (50-81) vs. 71 (40-87) years in the TF group (p=0.071). There were 74.5% male patients in the TF vs 67% in FS group. Most patients (83%) had active IE (FS: 78% vs TF: 86%, p=0.533) and native aortic valve IE (FS: 85% vs. TF: 66%, p=0.062). Surgical priority in FS and TF patients was urgent or emergent in 82% vs 91%, respectively (p=0.293). Abscess exclusion was done in 26% FS and 29% TF (p=0.764). Multiple procedures were done in 59% FS and 64% TF (p=0.701). Hospital mortality occurred in 7% FS and 22% TF (p=0.128). After excluding these patients, the 1-, 5- and 8-year cumulative survival rates for FS vs. TF were 92 vs. 91%, 88 vs. 77%, 78 vs. 71%, respectively (Log-rank p=0.453). There were 3 reoperations related to FS bioprosthesis (2 due to endocarditis at 2 and 9-years of follow-up and 1 due to structural valve deterioration at 7-years of follow-up); and 5 in TF (4 due to endocarditis at 1-, 3-, and 5-years (n=2) of follow-up and 1 due to nonstructural valve deterioration 6-years after AVR, corresponding to a freedom-from-reoperation of 79% vs. 83% at 10-years of follow-up, respectively (Log-rank, p=0.698).

CONCLUSION

TF bioprostheses was implanted in higher risk patients. Both groups presented high early mortality rate and long-term overall survival seems similar in stented and stentless aortic bioprosthesis. The need for reoperation was also similar and mainly due to new IE episodes in both bioprosthesis.

BICUSPID MINI-DAVID: A MODERN SOLUTION FOR AN OLD PROBLEM

João Lopes Cardoso (Portugal)[1]; Daniel Martins (Portugal)[1]; Fatima Neves (Portugal)[1]

1 - Centro Hospitalar Vila Nova de Gaia/Espinho

Keywords: *Minimally Invasive Cardiac Surgery, David Procedure*

INTRODUCTION

Aortic Valve-sparing techniques have long proven to be a viable and reproducible solution for select patients with aortic root enlargement and associated functioning aortic valves, even in the context of bicuspid aortic disease.

AIMS

A 50-year-old male, with prior history of uncontrolled arterial hypertension, was referenced to our center for an aortic root dilation with bicuspid aortic valve disease. Routine TTE reveal an dilated aortic root (49mm) and mild aortic regurgitation, with no outflow obstruction. On 1-year follow-up, there was evidence of a >3mm progression of aortic root dilation associated with uncontrolled arterial hypertension.

METHOD

The patient was proposed for valve-sparing aortic root replacement. Intraoperatively a Sievers Type I R-L valve (180º) was found, and a David procedure was conducted through a minimally invasive approach by 3rd right intercostal space partial sternotomy. Thepatient was extubated on the operation room, no inotropic support was needed. No complications were observed, and the patient was discharged on the 4th postoperative day.

On postoperative follow-up TTE no aortic valve regurgitation or obstruction were observed.

RESULTS AND CONCLUSION

Aortic valve-sparing techniques are increasingly adopted in day-to-day practice, and they remain a viable option in select bicuspid patients. Minimally invasive approaches do not significantly increase the technical difficulty or surgical risk of aortic valve-sparing techniques, provided they are performed by an experienced minimally invasive cardiac surgery team.

ENDOSCOPIC VEIN HARVESTING: RESULTS OF THE FIRST 100 PATIENTS

Tiago Silva (Portugal)[1]; Pedro Félix (Portugal)[1]; Manuela Silva (Portugal)[1]; Rui Cerejo (Portugal)[1]; Manuel Magalhães (Portugal)[1]; Pedro Coelho (Portugal)[1]; José Fragata (Portugal)[1]

1 - Centro Hospitalar Universitário Lisboa Central - Hospital Santa Marta

Keywords: *CABG, EVH*

INTRODUCTION

The saphenous vein continues to be one of the most used conducts for coronary artery bypass graft surgery. Open vein harvesting implies greater incisions and are often associated with complications, such as paresthesia and infection. As concerns the latter, it follows from the available literature that open vein harvesting is associated to a high rate of infection, up to 25% in some series. Endoscopic vein harvesting is an alternative to avoid these disadvantages.

AIMS

The purpose was to assess the results of the first 100 patients, where endoscopic vein harvesting was used.

METHOD

Prospective analysis of 100 patients, who were submitted to endoscopic vein harvesting for coronary surgery, between 1 July 2020 and 31 July 2022. Patient selection for endoscopic vein harvesting depended on the surgeons' choice and on the availability of the material. The mean age of the patients was 68.4 years and 80% were male. 83% of the patients underwent isolated coronary surgery, whereas the remaining patients were submitted to multiple procedures. There were no registered technical difficulties, harvesting mean time was approximately 40 minutes and conversion rate was 2% due to hemorrhage. Follow-up was carried out within six weeks, on the date of the first post-op appointment. The infection rate was of 3%, with no need of hospital treatment.

RESULTS AND CONCLUSION

Endoscopic vein harvesting seems to be a safe, reliable and replicable method for vein harvesting. Confronting the results with those of the available literature, endoscopic vein harvesting is better as concerns infection rates.

ACUTE TYPE A AORTIC DISSECTIONS: A 16-YEAR SINGLE-CENTER CASUISTIC

António Canotilho (Portugal)[1]; André Soeiro (Portugal)[1]; Carlos Branco (Portugal)[1]; Pedro Correia (Portugal)[1]; Gonçalo F. Coutinho (Portugal)[1]; Pedro E. Antunes (Portugal)[1]; David Prieto (Portugal)[1]

1- Serviço de Cirurgia Cardiotorácica e Transplantação de Orgãos Torácicos do Centro Hospitalar e Universitário de Coimbra

Keywords: *Acute Type A aortic Dissection, Ascending Aorta, Ascending Aorta replacement, stroke*

INTRODUCTION

Acute type A aortic dissection is a life-threatening disease that develops suddenly and requires emergency surgery. However, a number of problems remain during the postoperative course. One problem is the wide age range of the patients.

AIMS

The aim of this study was to evaluate the 16-year results of emergency operations for acute type A aortic dissection of one single center.

METHOD

We reviewed 155 patients who underwent surgical aortic repair of an acute type A aortic dissection from January 2000 to December 2016. We analyzed the early and late outcomes and in-hospital death and difficulty of direct discharge to home.

RESULTS

We collected 67%(n=104) males on our study. Mean age of group was 61,9±12,3 years, 23 of them older than 75 years. The preoperative data showed 52,9% of patients on NYHA III-IV(n=82), 7,1% with stroke(n=11), 18,7% with peripheral vascular disease(n=29), 11% with COPD(n=17), 5,8% on atrial fibrillation(n=9), 25,8%(n=40) with severe aortic regurgitation and a mean of LVEF of 52,1±8,1%. Six patients with Marfan Syndrome and 1 patient with Turner Syndrome.

One exploratory sternotomy was performed with no need for ascending Aorta replacement. During surgery, central cannulation was performed in 24,7%(n=38), 3 of them in brachiocephalic trunk, and femoral cannulation in 75,3%(n=116). Isolated ascending Aorta replacement was performed in 73,4%(n=113), associated with aortic valve replacement in 17,5%(n=27), 7 biological and 20 mechanical prosthesis. We performed 11 Bentall-De Bono procedures(7,1%) and 14 aortic valve repair(11,1%). Combined with Aorto-coronary bypass 19 patients(12,3%). The mean extra-corporal circulation time was 110,8±46,1min, aortic cross-clamping time 55,8±21,2min and Circulatory arrest time 21,2±7,5min. The mean cooling temperature during extra-corporal circulation was 20,4±2,9 ºC.

About postoperative data, inotropic support >12 hours was needed in 28,4%(n=44), V-A ECMO in 2,6%(n=4), ventilation time >12 hours in 23,2%(n=36), atrial fibrillation in 24,5%(n=38), 3rd degree AV block with need of permanent pacemaker implantation in 3,2%(n=5), pneumoniae in 7,1%(n=11) and stroke in 8,4%(n=13).

The mean timing to discharge was 16,5±11,3 days. The 30-day mortality was 6,5%(n=10): 2 of them during surgery and 3 before discharging. In the late follow-up period, the 5-year and 10-year survivals rates were 88.5%±2,6% and 77,1±3,7%, respectively. The 5-year and 10-year survivals rates free of MACCE events were 87,2±2,7% and 83,1±3,2%, respectively.

CONCLUSION

From the perspective of saving lives, the results of single centre casuistic emergency surgery were very acceptable and showed the way we should adopt even in selected older patients.

THE LOST AMULET: A CASE REPORT OF A DEVICE MIGRATION INTO THE LEFT VENTRICLE

Catarina Novo (Portugal)[1]; Daniel Martins (Portugal)[1]; Nelson Santos (Portugal)[1]; João Cardoso (Portugal)[1]; Fátima Neves (Portugal)[1]; Sara Costa (Portugal)[1]

1 - Centro Hospitalar Vila Nova de Gaia/Espinho

Keywords: *LAAC, Atrial fibrilation*

INTRODUCTION

Percutaneous left atrial appendage (LAA) occlusion is the gold standard procedure to reduce the risk of cardioembolic events in patients with nonvalvular atrial fibrillation (AF) that are unsuitable for chronic oral anticoagulation. Early dislocation or embolization of the occlusion device has been reported and is generally an emergency that requires an immediate percutaneous or surgical procedure for its removal.

AIMS

Our aim was to demonstrate the risks of percutaneous LAAC and the necessity of a majorly low risk surgical solution.

METHOD

A 66-year-old male with paroxysmal atrial fibrillation and Osler-Weber-Rendu Syndrome was referred for percutaneous LAA occlusion with an Amplatzer Amulet™ device. The procedure, executed under transesophageal echocardiography (TOE) guidance, was apparently a success. The next day transthoracic echocardiography (TTE) showed a migration of the device into the left ventricle, in an asymptomatic patient.

We decided to perform urgent surgical removal of the device. The patient underwent a minimal invasive surgery, through a right mini thoracotomy, with femoral cannulation, to remove the device from the left ventricle and to close the LAA with a purse-string suture; additionally, we also closed the transeptal puncture site.

The device was entangled in the mitral apparatus and was removed without damaging any chordae. The intraoperative TOE revealed trivial mitral regurgitation and successful LAA occlusion. The postoperative course was uneventful, and the patient was discharged from the hospital four days later.

RESULTS AND CONCLUSION

Transcatheter LAA occlusion is progressively gaining ground as a method to reduce the risk of thromboembolic events in patients with nonvalvular AF and contraindication for oral anticoagulation. However, it is nor risk free. Pericardial effusion requiring drainage, acute ischemic stroke due to air embolism or solid thromboembolism, embolization of the device and post implantation sepsis have been described. We report a case of embolization of the device to the left ventricle, that was successfully removed and the LAA closed, thus reducing the thromboembolic risk of the patient, through a minimally invasive approach.