The publication by Guler et al. [1] highlights a very problematic area in valvular surgery, the treatment of paravalvular leakage (PVL). They successfully treated mitral PVL transapically in a high-risk patient with an Amplatzer duct occluder device. They avoided all the known complications of redo surgery and the additional risks that might be brought by the comorbidities of the patient. The relation of the PVL with the hinge points of the prosthetic valve was very well emphasized, which is one of the most important determinants of procedural success rates. They also used three-dimensional transoesophageal echocardiography and demonstrated the procedure with excellent pictures.

In this valuable report, there is a particular topic we would like to discuss. We know that mitral PVL has a detrimental course, especially compared with aortic PVL (16 ± 8 vs 70 ± 12% event-free survival rates in 8 years) [2]. This finding mandates immediate therapeutic intervention. In percutaneous modalities of PVL occlusion, there is no real rim-like atrial septum. The anatomy may increase the tendency for residual leakages after the first occluder deployment. In addition, this strategy, particularly in the aortic position, may cause a new PVL in the anterior or posterior aspect of the device, which may require a second or third occluder implantation and even embolization after first occluder implantation. Therefore, the size of the connector that connects both discs should be of the same diameter as the defect. Sriratanaviriyakul et al. [3] reported a similar case in which they had to implant a second occluder device. So, it should be emphasized that, due to anatomical features, size matters in occluder device treatment of PVLs to prevent secondary leakages and possible embolization. Because, as the number of implanted occluder devices increase due to unfavorable anatomy, the risk of embolization will also increase. Embolized occluder devices, even in simple secundum atrial septal defects, increase the mortality 20-fold compared with elective surgery [4].

In conclusion, we believe that interventional treatment modalities of PVL will save patients’ lives with decreased adverse event rates. We would like to congratulate the authors for their success and thank them for sharing their experience with the readers.

**REFERENCES**

appropriate length is chosen, while the waist accommodates the defect. The ADO II is available in eight sizes with four waist diameters (3, 4, 5, and 6 mm) and there are two length options for each waist diameter (4 or 6 mm). In our case, [3] the device length was 4 mm and the waist diameter was 6 mm (with a circumference of ~18.84 mm). However, the height of the mechanical valve was standard and was ~5 mm, and its sewing cuff height was almost 4 mm with the suture and endothelial cover. The paravalvular defect width was 5 mm [3]. Although not mentioned in the article, the lateral diameter was ~3 mm, and the circular length ~16 mm, which was smaller than the waist circumference of the device. We think that the defect circumference should be a little bit smaller than the waist circumference of the device and the maximum length of the device should be up to the length of the defect. If a device with a larger waist circumference is chosen, it will fit the shape of the paravalvular defect perfectly with the help of its self-expanding property, while its length increases and both discs prevent embolization.

The self-expandability, a slightly larger waist circumference, localized convergence at each disc and appropriate device length allow device fixation and conformism within the paravalvular anatomical defect, provide protection from embolization and prevent the occurrence of new paravalvular leakages under 3D-TEE and fluoroscopic guidance.

REFERENCES


Correlation sometimes implies causation: possible roles of correlation analysis between 18fluorine-fluorodeoxyglucose positron emission tomography/computed tomography and thymic epithelial neoplasms

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We read with interest the paper of Fukumoto et al. [1] on the assessment of the usefulness of 18fluorine-fluorodeoxyglucose positron emission tomography/computed tomography (18F-FDG PET/CT) in distinguishing the histological subtypes of thymic epithelial neoplasms (TENs). The authors divided the early-stage TENs patient cohort according to the WHO histological classification into two groups (low- and high-risk tumors), and the focal FDG accumulation was evaluated merely through the determination of the maximum standardized uptake value (SUVmax). The authors found that the SUVmax values of the low-risk and high-risk TENs were significantly different. However, the two figures reported in the paper regarding SUVmax in subgroups according to a simplified WHO histological classification and the SUVmax of the Stages III and IV TENs show large confidence intervals, and no statistical correlation of data was performed.

In our previous work [2], we evaluated the role of 18F-FDG PET/CT in the pre-treatment evaluation of TENs, finding that there exists a correlation between the SUVmax, the SUV tumour/mediastinum (T/M) ratio and the WHO classification of TENs. According to these findings, it should be of interest to know the authors’ data on the SUV T/M ratio. The SUV T/M ratio [3] can significantly improve SUV measurements, because the ratio of SUVmax by the mediastinal SUV, taken in a selected point that is in the aortic arch, reduces the variability of SUV determination. In fact, SUV normalization expresses the ratio between the activity concentrations in tissue compared with the background mediastinal activity that is the real activity of mediastinal tissue. The relationship between these variables can give a more correct interpretation of how strong the relationship is between them.

Nowadays, no definitive conclusion can be drawn about 18F-FDG PET/CT as a modality to predict the histological type.