

Biodegradable materials for tricuspid valve repair in infective endocarditis

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We read with interest the report by Akinosoglou *et al.* [1] on the surgical management of tricuspid valve infective endocarditis. We congratulate the authors for their excellent and extensive review of the literature and for providing useful management algorithms. We would like to discuss biodegradable materials in this patient group.

The authors divide the surgical techniques into non-prosthetic and prosthetic. However, there exists an intermediate option, which is not mentioned: the emerging role of biodegradable materials in valve repair.

Annuloplasty plays an important role in valve reconstruction, particularly if a significantly infected leaflet segment must be resected to relieve tension on the repaired leaflets. We have used a biodegradable annuloplasty ring, which is inserted subendocardially, dissolves and is replaced by autologous fibrous tissue [2]. This might represent an advantage for this specific patient population, due to the lack of blood contact and absorbable ring material. We have previously reported our experience using this ring in patients with acute infective endocarditis [3, 4].

Furthermore, the authors discuss patch reconstruction of debried leaflets, but do not review the available materials and their relative benefits in endocarditis. We are particularly interested in extracellular matrix scaffolds (such as CorMatrix©) for the repair of large leaflet defects, as these patches are intended to be replaced by autologous tissue [5].

These evolving biodegradable devices, from annuloplasty rings to patch materials, offer the potential for valve repair with degradable materials replaced with autologous tissue, which could further improve the results of valve repair for infective endocarditis. Long-term results are lacking and further data are necessary to validate this theoretically interesting approach to infective endocarditis.

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