Editorial Comment

Editorial Comment to Safety and mid-term surgical results of anterior urethroplasty with the tissue-engineered oral mucosa graft MukoCell®: A single-center experience

Urethroplasty using substitute tissue is the standard treatment for long anterior urethral strictures.[1] Oral mucosal grafts are ideal urethral substitutes owing to their many advantages, such as being suitable for wet environments, excellent infection protection, thick mucosa for easy handling and thin submucosa for secure engraftment. Oral mucosa is mainly harvested from the inner cheeks and the undersurface of the tongue, but the amount of mucosa that can be harvested is limited. In cases such as that of pan-anterior urethral stricture, where a long segment needs to be augmented with substitute tissue, extensive oral mucosa harvest from multiple sites is required. Although oral mucosal harvesting is a safe and well-established technique, it can lead to a number of donor site complications, such as feeding and mouth-opening difficulties, and the risk of complications is higher with bilateral than unilateral sampling.[2] Additionally, in patients with recurrent urethral stricture, it might not be possible to harvest the required amount of oral mucosa because it was harvested in the previous urethroplasty. A tissue-engineered oral mucosa graft can drastically solve these problems, and MukoCell® is the most advanced tissue-engineered oral mucosa graft currently available for clinical application. Barbagli *et al*. reported that MukoCell® urethroplasty had outcomes comparable to those of conventional oral mucosa graft urethroplasty.[3] In the present study, Karapanos *et al*. reported their experience with MukoCell® urethroplasty for anterior urethral stricture ≥2 cm in 77 patients at a single institution, with a median follow-up period of 38 months and a recurrence-free rate of 68.8%.[4] Although the authors reported inferior outcomes for bulbar urethral stricture compared with those of Barbagli *et al*., they were comparable with those for other sites. Notably, there was no evidence of comorbidity at the oral mucosa donor site. The recurrence rate was extremely high in patients with repeated urethral dilatation before urethroplasty, suggesting that the outcome of MukoCell® urethroplasty could be further improved if urethroplasty is chosen early, instead of repeated futile urethral dilatations. The problem with MukoCell® urethroplasty is its high cost, and the market needs to be expanded to achieve lower cost in the future. I hope that the results of the phase III trial initiated by the authors will further expand the indications for MukoCell®.

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Conflict of interest

None declared.

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