

Comment on: Continuous intraoperative optical coherence tomography-guided shield ulcer debridement with tuck in multilayered amniotic membrane transplantation

Sir,

We read with great interest the article on continuous intraoperative optical coherence tomography-guided shield ulcer debridement with tuck in multilayered amniotic membrane transplantation and would like to congratulate the authors for introducing a new technique of shield ulcer management.^[1]

While we agree with the authors regarding the benefit of multiple layers of amniotic membrane transplantation (AMT) in faster healing of shield ulcer, we have certain doubts regarding the technique.

The authors have described that the first amniotic membrane was applied with stromal side up with margins tucked in the subepithelial pockets created in the surrounding de-epithelized edges and the second membrane was put with the stromal side down.^[1] We would like to ask the authors about how

the stromal side up type of AMT would have lead to rapid epithelial healing. It is the basement membrane (BM) of amniotic membrane which promotes migration, adhesion, and differentiation of surrounding epithelial cells, and therefore, AMT should be done with the epithelium or BM side up when used as a graft in persistent epithelial defects or nonhealing ulcers.^[2,3]

The stromal side of amniotic membrane inhibits the fibroblastic proliferation by inhibiting the TGF-B signaling pathway and should be placed towards conjunctival or corneal side when used for reducing the scarring.^[4] It also reduces inflammation by acting as a barrier to the toxic effects of tears when used as a patch.^[5]

We are also of the same opinion that when used as a graft it should be put with BM side up, and when used as a patch, it should be put with the stromal side down.

Besides we would also like to ask the opinion of authors about their experience of topical immunosuppressants (tacrolimus, cyclosporine, etc.) in such cases of severe vernal keratoconjunctivities.

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Conflicts of interest

There are no conflicts of interest.

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