Conjunctival limbal autograft and allograft transplantation using fibrin

glue.

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Abstract:

BACKGROUND AND OBJECTIVE: Conjunctival limbal autograft is the surgical treatment of choice

for visually significant unilateral limbal stem cell deficiency. The use of fibrin glue, which has been

reported extensively in pterygium and other conjunctival surgeries, has not been fully described in

limbal stem cell transplantation.

PATIENTS AND METHODS: The authors reviewed 3 cases of conjunctival limbal autograft and 1 of

living related conjunctival limbal allograft using only fibrin glue to secure the graft. Main outcome

measures included ocular surface stability, visual acuity, and postoperative complications.

RESULTS: At most recent follow-up, all 4 patients (100%) maintained a stable ocular surface. Mean

epithelial healing time was 10 days. Mean visual acuity improved from 20/400 to 20/53. All grafts

were successful with no postoperative dislocations or displacements.

CONCLUSION: The findings demonstrate that fibrin glue can be used safely and effectively to

secure conjunctival limbal grafts in limbal stem cell deficiency. This novel approach has the potential

to decrease operative time, increase ease of technique, and improve patient comfort

postoperatively.

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