Fibrin glue as a delivery vehicle for autologous urothelial cell

transplantation onto a prefabricated pouch.

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Abstract:

Purpose: The purpose of the study was to investigate how in vivo expanded urothelium can be

transplanted onto a prefabricated capsule-pouch for urinary reconstruction. Materials and Methods:

Urothelial cells from 40 rats were harvested for culture. A tissue expander was used to induce a

capsule-pouch on which the cell culture were reimplanted ten days later. As delivery vehicle we

compared standard culture media and fibrin glue. Results: The histology demonstrated viable,

multilayered clusters of urothelium cells only in the group using the fibrin glue delivery vehicle.

Conclusion: We conclude that cultured urothelial cells can be successfully reimplanted onto a

prefabricated capsule- pouch via fibrin glue, showing potential for urinary reconstructions.