CHAPTER 28

Neomembranes: a Concept Review with Special Reference to Self-Reinforced Polyglycolide Membranes

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Summary

Absorbable implants are being increasingly used in various fields of medicine. Important materials for these applications include the polyesters polylactide and polyglycolide. Following implantation of any absorbable device there occurs a proliferation of fibrous tissue, which along with material from the degrading implant forms a composite membranous structure-a neomembrane. Neomembranes can be exploited in guiding tissueregeneration. Success in this respect has been achieved in treatment of bone defects, nervedefects, and periodontal ligaments. Future research may ultimately permit taking advantage of neomembranes in the reconstruction of more complex organs such as the liver. Gaining an understanding of implant characteristics and implant-tissue interaction isessential for further progress in this area.

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Topics in Tissue Engineering, Vol. 5, 2009. Ed. N Ashammakhi