Analisis sifat arsitektural scaffold kitosan dan kitosan-RGD cangkang kepiting dengan sem dan swelling test = Architectural properties analysis of crab shell chitosan and chitosan RGD scaffolds using sem and swelling test

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Abstrak

ABSTRAK
Scaffold membran kitosan dan kitosan-RGD cangkang kepiting diproduksi oleh BATAN, untuk rekayasa jaringan pada rongga mulut. Sifat arsitektural kedua scaffold belum diteliti. Tujuan: Meneliti sifat arsitektural scaffold membran kitosan dan kitosan-RGD cangkang kepiting. Metode: Jumlah, ukuran, jarak antar pori dan porusitas dengan uji SEM dan analisis ImageJ. Daya serap dengan Swelling test. Hasil: Scaffold kitosan dan kitosan-RGD memiliki 225 dan 237 buah pori, berukuran 176.4mm dan 178.3mm, porusitas sebesar 12.8 dan 12.9 , jarak antar pori sebesar 94.7mm dan 93.3mm, serta daya serap sebesar 10.5mgH2O/mgScaffold dan 19.2mgH2O/mgScaffold. Kesimpulan: Sifat arsitektural scaffold membran kitosan RGD cangkang kepiting cenderung lebih baik.
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ABSTRAK
Introduction Crab Shell Chitosan and Chitosan RGD membrane Scaffolds have been made by BATAN, for tissue engineering in oral cavity. Architectural properties of both scaffolds have never been analyzed. Purpose To analyze the architectural properties of both scaffolds. Methods Pore amount, pore size, interpore distance and porosity using SEM test with ImageJ analysis. Water absorption using swelling test. Results Chitosan and Chitosan RGD scaffolds have 225 and 237 pores, 176.4mm and 178.3mm sized pore, porosity of 12.8 and 12.9 , interpore distance of 94.7mm and 93.3mm, with water absorption of 10.5mgH2O mgScaffold dan 19.2mgH2O mgScaffold. Conclusions Crab shell chitosan RGD membrane scaffold has better architectural properties.