Perilaku Human Osteoblast Cell Line MG63 (proliferasi osteoblas, konsentrasi alkali fosfatase, dan osteokalsin) terhadap paparan Bovine Periosteal Membrane produksi Batan : Penelitian In-Vitro = Human Osteoblast Cell Line MG63 behavior (osteoblast proliferation, alkaline phosphatase, and osteocalcin concentration) on the exposure of Batan's Bovine Periosteal Membrane

Rindang Yuasari, author

Abstrak

[ABSTRAK
Penyembuhan defek tulang akibat trauma, antara lain dapat berupa trauma fisik; mekanik; kimia maupun biologik dapat dilakukan melalui terapi transplantasi tulang autogenik; allogenik; alloplastik dan xenogenik. Penggunaan material xenogenik yang paling sering digunakan dalam mempercepat penyembuhan adalah material dari bovine yang mempunyai potensi osteokonduktif sangat baik. Penelitian ini bertujuan untuk mengetahui perbedaan perilaku sel osteoblas manusia terhadap paparan bovine periosteal membrane dibandingkan dengan kontrol. Hasil penelitian ini menunjukkan bahwa Bovine periosteal menbrane produksi BATAN yang diujikan tidak menstimulasi proliferasi sel osteoblas setelah 24 jam pemaparan. Disamping itu, tidak terdapat perbedaan bermakna terhadap ekspresi fosfatase alkali dan konsentrasi osteokalsin pada sel osteoblas yang dipapar dengan bovine periosteal membrane dibandingkan dengan kontrol
<hr>
ABSTRACT
Healing of bone defects due to trauma, including physical; mechanical; chemical and biological trauma can be done through autogenic; allogenic; alloplastic and xenogenic bone transplantation therapy. The most common xenogenic material that is used for bone healing acceleration is bovine material which has excellent osteoconductive potention. The aim of this study is to determine the differences in the behavior of human osteoblast cells on exposure to bovine periosteal membrane compared with controls. The results of this study indicate that bovine periosteal membrane from BATAN is not stimulate the proliferation of osteoblast after 24 hours of exposure. In addition, there is no significant difference on the expression of alkaline phosphatase and osteocalcin concentration in osteoblast cells exposed to bovine periosteal membrane compared with controls. , Healing of bone defects due to trauma, including physical; mechanical; chemical and biological trauma can be done through autogenic; allogenic; alloplastic and xenogenic bone transplantation therapy. The most common xenogenic material that is used for bone healing acceleration is bovine material which has excellent osteoconductive potention. The aim of this study is to determine the differences in the behavior of human osteoblast cells on exposure to bovine periosteal membrane compared with controls. The results of this study indicate that bovine periosteal membrane from BATAN is not stimulate the proliferation of osteoblast after 24 hours of exposure. In addition, there is no significant difference on the expression of alkaline phosphatase and osteocalcin concentration in osteoblast cells exposed to bovine periosteal membrane compared with controls.]