

Alteration of Bone Strength in Osteoporosis of Mouse Femora: Computational Study Based on Micro CT Images

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Abstract : The purpose of the study is to develop a finite element model based on 3D bone structural images of Micro-CT and to analyze the stress distribution for the osteoporosis mouse femora. In this study, results of finite element analysis show that the early osteoporosis of mouse model decreased a bone density in trabecular region; however, the bone density in cortical region increased.

Keywords : micro-CT, finite element analysis, osteoporosis, bone strength

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