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Basic Study

Benefits of Ilizarov automated bone distraction for nerves and articular cartilage in experimental leg lengthening

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Abstract

AIM: To determine peculiarities of tissue responses to manual and automated Ilizarov bone distraction in nerves and articular cartilage.

METHODS: 29 dogs were divided in two experimental groups: Group M - leg lengthening with manual distraction (1 mm/day in 4 steps), Group A - automated distraction (1 mm/day in 60 steps) and intact group. Animals were euthanized at the end of distraction, at 30-th day of fixation in apparatus and 30 days after the fixator removal.

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He also discovered that other tissues such as blood vessels, **nerves**, and ... From his **experiments**, **Ilizarov** concluded that the optimum rate of **distraction** is ... **limb lengthening** or for regenerating bone which has been removed due to ... enchondromas-benign masses of **cartilage** growing within bone, close to growth plate.

Missing: **articular**

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To determine the optimal rhythm of **distraction** and level of osteotomy for maximal muscle preservation during **limb lengthening**, histologic and ... The main outcome was time to **bone** union, and potential **benefits** to soft tissue, e.g., ... [10] showed histologic evidence of tibial **articular cartilage** damage in rabbits that had ...