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Research Article

Lisinopril-Induced CD34 Bone Healing Marker

ABSTRACT:

Background: Lisinopril is an angiotensin-converting enzyme (ACE) inhibitor that is commonly used to treat high blood pressure and heart failure. While it is generally well-tolerated, some studies have suggested that it may affect bone healing, suggesting that lisinopril treatment was associated with an increase in the CD34 bone healing marker in patients with tibial fractures. CD34 is a protein that is involved in the formation of new blood vessels and has been shown to play a role in bone healing.

Methods: The study used 24 rabbits with artificially induced tibial bone fracture divided into 4 groups (6 rabbits each), the control group treated with distilled water and 3 groups treated with lisinopril. Each group were sacrificed for immunohistochemical study on 3 timepoints at day 7, 14, and 21.

Results: Indicated that the lisinopril group had significantly higher levels of CD34 than the control group.

Conclusion: While the results of this study suggest that lisinopril may have a positive effect on bone healing, more research is needed to confirm these findings and to determine the mechanisms by which lisinopril may affect bone healing. It is also important to note that lisinopril may have other potential side effects, and patients should discuss any concerns with their healthcare provider.