

Focused and Radial Shock Wave Treatment Influence Human Mesenchymal Stem Cells

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Device and producing company:

Piezoson 100, Wolf Company, Germany and Swiss Dolorclast, EMS, Switzerland

Introduction: Focused and radial shock waves can influence mesenchymal stem cells.

Therefore it can be speculated that shock waves can influence tissue repair and regeneration in this way.

Methods: By special experimental studies we can demonstrate that migration, cytoskeleton, proliferation and apoptosis of MSC`s can be influenced.

Results: The present results show that MSC`s dose and frequently dependently influenced by different kind of shock waves.

Discussion: The question was whether the radial or the focused shock wave application had different effects on MSC`s.

Conclusion: The dose range for a pro-migration effect seems small for focused compared to radial shock waves. A pro-proliferation effect is only seen for focused shock waves