

REVIEW PAPER: DUPUYTREN'S VERSUS BURN SCAR CONTRACTURE
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Scar formation and resultant contracture can be considered the body's response to an untoward event. The purpose of this presentation is to review the body of literature regarding the intersection of burn scar and Dupuytren's contractures.

HYPOTHESIS: Burn scar contractures and Dupuytren's contractures have significant similarities, which can allow cross-referencing of literature and treatment modalities to affect eventual outcomes. Although the time frames and phases may vary, common methods can alter outcomes in both.

METHODS: Extensive literature search is being conducted for overlapping knowledge base basic information and treatment considerations. All aspects are being explored, both on the cellular and DNA level as well as macro and physical modalities.

RESULTS: Desmouliere and Gabbiani have written on the role of the myofibroblast in wound healing and fibrocontractive diseases with hypertrophic scar containing significant amounts of myofibroblasts. There is controversy whether these cells are a pre-apoptotic cell or delay the apoptotic process. Fibroblastic formation has been modulated by cytokines such as TGF-beta, IGF-1, Interferons and possible T-lymphocytes. There are significant overlaps of scar formation by burns and Dupuytren's to warrant further investigation.

SUMMARY POINTS: The mechanisms of injury are different between burns and Dupuytren's. The burn insult is usually a single inciting external event causing superficial to deep progression. Dupuytren's is an internal insidious progression. The end result in a subset of patients though is quite similar. It is the identification of these patients and their response to intervention which successfully alters the deteriorating cascade that is exciting. The hypertrophic burn scar contracture and the Dupuytren's contracture have significant commonality to warrant further combined data sharing to alter long-term effect.