عنوان مقاله:
Stem cells for scar removal

محل انتشار:
چهارمین کنگره بین المللی و ششمین کنگره ملی زخم و ترمیم بافت (سال: 1398)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:
Background and objective: Scarring of the skin, typically from burns or surgery, places an enormous burden on individual patients and on society. Stem cells are crucial to the innate tissue healing response and, as such, present a possible modality to therapeutically promote regenerative healing while minimizing scaring. While most therapeutic approaches depend on the true application of progenitor-type cells to damaged tissue to accelerate regeneration, novel techniques to manipulate the scarring response are also introduced.Search method: In the context of this overview, 15 articles were used between the years 2010 through the end of 2018 using the keywords of PubMed, Google scholar search engines.Results: Application of stem cells to burn wounds has shown to stimulate healing and decrease inflammation and fibrosis in both animal and human models. Improved formation of granulation tissue and neovascularization contributes to this positive therapeutic effect. Addition of growth factors and supportive cell types to enhance stem cell function has further improved healing in wounds and burns.Conclusion: Stem cell therapies hold promise to promote regeneration of healthy, functional tissue and limit the over healing, scarring response. As our knowledge of the developmental and cellular basis of fibrosis increases, key targets to reduce scarring and fibrosis continue to emerge. Novel therapeutics based on stem cell therapy have been a disappointment in human clinical trials thus far, but there is hope that continued work in this field will yield new insights into wound healing and will allow for the development of more effective treatments

کلمات کلیدی:
Stem cell, Scar, Tissue regeneration