

Effectiveness of fibrolysis diacutaneous in the management of musculoskeletal diseases. A systematic review

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Abstract

Purpose: The principal aim of the review is to study the evidence regarding the effectiveness of diacutaneous Fibrolysis (DF) in musculoskeletal diseases and getting some recommendations evidences based.

Methods: An electronic literature search was conducted utilizing PubMed, ScienceDirect, PEDRO, Cochrane and Mendeley. All titles and abstracts were reviewed, and full text articles meeting eligibility criteria were assessed in detail to determine inclusion or exclusion. Articles were reviewed by two different investigators.

Results: Principal findings of this review shows an improvement in functional capacity and a significant reduction of symptoms in the FD groups, immediately after intervention and at least, three months follow up.

Conclusions: There is limited evidence and more studies are needed to assess the effectiveness of DF to improve the function or the symptomatology.

Background

Musculoskeletal diseases are one of the main causes of disability in the developed world and consume a large amount of health and social resources, calculated around 215 billion US\$ in US, 26 billion Canadian \$ in Canada, 38 billion euros in Germany [1], 171,1 million US\$ in Colombia [2] or 5,7 billion pounds in UK [3].

The diacutaneous fibrolysis (FD) technique is a non-invasive physiotherapeutic technique which aims to release adhesions between musculoskeletal system tissues using as a tool a set of hooks. The principal aim of the technique is to recover the optimal fascial system mobility.

The clinical use of the fibrolysis diacutaneous to treat musculoskeletal diseases is growing and it is achieving really good results. However, the scientific evidence is still poor.

Purpose

The aim of this systematic review is to explore the evidence regarding the effectiveness of diacutaneous fibrolysis in musculoskeletal diseases and getting some recommendations evidence based.

Methods

An electronic bibliographic search was performed using the next databases: PubMed (n = 7), ScienceDirect (n = 8), PEDro (n = 5), Cochrane (n=11), Mendeley (n=35).

The keyword “diacutaneous fibrolysis” was used. The articles found in the first search were analysed following the next inclusion criteria: published in English language, human subjects, randomized controlled trials, an intervention group treated by FD, patients suffering a musculoskeletal disease.

Using the PEDro scale, two different investigators analysed the quality of methodology in articles found in our research to be accepted in our inclusion criteria.

Results

The first search yielded 66 articles but only 4 satisfied the inclusion criteria after the first reading [4-7]. The studies selected had a methodological average score of 9 in PEDro scale (scale range 0-11, best possible score was 11).

All these 4 studies included in our revision demonstrated a clear improvement in functional capacity in the FD groups immediately after intervention. Moreover, the improvement lasted three months' follow-up in two studies (one of the others two didn't assess the mid-term follow-up).

Two articles demonstrated significant reduction of symptoms in the FD group. The other two didn't find this symptoms release.

Conclusion

There's limited evidence showing the symptom improvement using DF immediately after the intervention compared to conventional or placebo treatment.

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More studies are needed in the assessment of DF effectiveness to improve functionality or symptomatic conditions to draw firm conclusions, especially long-term reviews. Furthermore, studies should focus on specific injuries to draw more particular conclusions about the use of FD in that injury.

Implications

We recommend fibrolysis diacutaneous, compared to control or placebo, for improving functional capacity and symptom conditions in patients suffering musculoskeletal diseases.

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