

Acoustic wave therapy in cellulite - an evidence-based meta-analysis 2019

Onde acustiche per il trattamento della cellulite: una metanalisi evidence-based del 2019

Objective: the aim of this meta-analysis is to investigate the effectiveness of acoustic wave therapy (AWT) using either radial extracorporeal shockwave therapy (ESWT), focused ESWT or the combination of both technologies in cellulite based on published clinical data in a standardized evidence-based medicine way.

Methods: in December 2018 electronic databases as well as reference lists of the available studies were evaluated by two expert examiners. Assessment of each study's methodological quality was performed with the help of the published quality index tool.

Results: this meta-analysis included a total of twelve clinical trials on the effects of ESWT on cellulite with a total of 322 included females. Among the twelve clinical trials five randomized controlled trials on ESWT in cellulite with a total number of 123 females have been published by Dec 2018. Both, focused as well as radial ESWT devices have been found effective in treating cellulite so far with follow-up assessment among 3 to 12 months following ESWT. Typically, one or two sessions per week and six to eight sessions overall were studied in the published clinical trials. The combination of radial and focused ESWT was done in three clinical trials. Overall, outcome parameters mainly focused on digital standardized photographs, circumference measurements and specific ultrasound examinations. Reporting quality showed substantial heterogeneity from 22 to 82 points with a mean of 57 points.

Discussion: both, focused and radial extracorporeal shock wave therapy (ESWT) improve cellulite. As of now, 12 clinical trials with 5 RCTs among them have been published beneficial results of ESWT in cellulite. There is growing evidence that both, radial as well as focused ESWT and the combination of both improve the degree of cellulite with various outcome parameters. Typically, six to eight treatments once or twice a week have been studied without any adverse effects noted.

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