

Localized Calcifications in a Patient with Limited Scleroderma, Treated with ESWT - Case Report

Author:

C.Tedeschi**; D. Bianchini**; G. Bajocchi***; R. Zoboli*

Institution:

** Rehabilitation Unit,

***Rheumatology Unit. Arcispedale Santa Maria Nuova; Reggio Emilia, ITALY.

*Sassuolo Hospital; Modena, ITALY

The aim of this case report was to evaluate the efficacy of the ESWT to reduce pain and the size of cutaneous calcifications in a patient with Limited Scleroderma (LS). Scleroderma is a heterogeneous disease (Diffuse, limited and localized) characterized by overproduction of collagen and extracellular matrix, damage of small vessels endothelium with tissue ischemia, and activation of immune system.

The Limited variant of scleroderma (previously defined C.R.E.S.T) is often characterized by subcutaneous calcium hydroxapatite deposits mainly distributed in the digital pads and periarticular tissues. The presence of calcinosis causes digital ulcers and severe pain. At the moment no definitive effective treatments are available for this complication.

With this background we begin to treat these patients with ESWT with the purpose to reduce pain and, possibly the size of calcifications. Due to the peripheral localization of the calcifications no major adverse effect are expected by the ESWT treatment.

An X-ray of hands was performed to localize the presence and dimension of cutaneous calcinosis. We identified 2 areas of treatment: one on right thumb and one on the third left finger. The protocol consisted in six applications (one a week) with the lowest level of energy using a Wolf Piezoson 3000.

End points were to evaluate pain reduction (VAS scale) and the size of calcifications (on control X-ray).

Reduction of pain on thumb (VAS): from 6 to 0 at the third treatment.

Reduction of pain on third left finger (VAS): from 8 to 4 at the sixth treatment.

Reduction of size of calcification: no significative reduction of size was observed.

ESWT seems to be a safe and useful treatment for reduction of pain due to subcutaneous calcifications in LS patients. At the moment no reduction of size of the calcification was observed. Larger number of patients are required to confirm the result of this case report.