



PERCUTANEOUS INDUCTION OF COLLAGEN WITH NEEDLES (IPCA®): PRELIMINARY EXPERIENCE IN THE TREATMENT OF PATIENTS WITH SYSTEMIC SCLEROSIS

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BACKGROUND

Percutaneous induction of collagen with needles (IPCA®) consists of a dermatological procedure that proposes the replacement of damaged collagen with a new one, without causing desepithelization, through multiple micropunctations, promoting bleeding, inflammatory stimulation and activation of an inflammatory cascade, which would result in the production of a healthy collagen. The aim of the present study was to evaluate the effect of IPCA on the cutaneous face impairment of patients with systemic sclerosis (SSc).

MATERIALS AND METHODS

Patients with SSc diagnosis according to the classification criteria of ACR/EULAR 2013, who presented skin thickening on the face, were selected. The patients were submitted to IPCA® sessions every 15 to 30 days. A roll of about 192 needles of 2.5mm length was used, promoting moderate to profound injury. The width of the buccal opening was evaluated by taking into consideration the edges of the upper and lower central incisors and the width of the buccal commissure as the distance between the labial commissures, both measured after the maximum opening of the oral cavity.

RESULTS

Seven patients underwent the IPCA® procedure, all female, with a mean age of 46 years (range 25 to 74 years), four of them with diffuse cutaneous form and three with limited cutaneous form. The number of sessions ranged from two to six. Four patients presented increased mouth opening and commissure. An increase in mean mouth opening (31.9mm for 34.3mm, $p = 0.98$) and commissure (41.6mm for 44.3mm, $p = 0.47$) was observed. Regarding adverse events, most patients (71.4%) reported pain during the procedure and edema soon after. 4/7 patients reported being "very satisfied" with the outcome of the procedure and 3/7 declare themselves "moderately satisfied".

CONCLUSION

In this pilot study, the IPCA technique demonstrated promising results in the treatment of cutaneous facial involvement in SSc patients, suggesting aesthetic and possibly functional effects. Additional studies are needed to better elucidate the efficacy and safety of the procedure.