Extracorporeal Acoustic Wave Therapy and Multiple Symmetric Lipomatosis

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Summary: Acoustic waves are mechanical waves recently used to activate tissue metabolism by exploiting the cell permeabilization caused by their passage. We report a case of a retroauricular lipoma in a 44-year-old woman affected by multiple symmetric lipomatosis and treated with extracorporeal acoustic wave therapy. The adipose thickness of the lipoma was reduced from 35.8 to 21 mm, with increased softness at palpatory examination. (Plast Reconstr Surg Glob Open 2015;3:e430; doi: 10.1097/GOX.0000000000000407; Published online 22 June 2015.)

CASE REPORT

A 44-year-old woman, surgically treated several times for multiple symmetric lipomatosis, presented

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a retroauricular lipoma (Fig. 1). She reported pain and limited sleep, because of the inability to rest her head on the pillow. Clinically, the lipoma was hard, fibrotic, and 35.8-mm thick, as confirmed by ultrasound (Fig. 3A).

After informed consent, the lipoma was treated with EAWT (Cellactor SC1, Storz Medical, Switzerland) applying only the defocused planar handpiece once a week, for a total of 8 sessions (Fig. 2). The energy range was 0.09–0.27 mJ/mm², with a consequent frequency of 5–3 Hz and a total number of pulses of 1200 per session.

**RESULTS**

One month after the end of treatment, a further ultrasound scan was taken to check adipose thickness, which had been reduced from 35.8 to 21 mm (Figs. 3, 4), clinically evident as increased softness at palpation. The patient reported less pain and increased hours of sleep. The treatment was well accepted by the patient, because of the absence of anesthesia, pain and scarring, noninvasivity, and feasibility in a medical office.

**CONCLUSIONS**

EAWT is a noninvasive treatment, painless, and well accepted by patients. In view of its features and the results obtained, it may be a good alternative or adequate
support to traditional treatment in patients affected by diseases requiring multisession surgical therapy.

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