The Utility of Skin Ultrasound for the Diagnosis of Complications of Tissue Filler Materials

Utilidad de la ecografía cutánea en el diagnóstico de las complicaciones por materiales de relleno

To the Editor:

The increase in the number of cosmetic procedures in recent years means that in our daily practice we are seeing even more side effects of the different techniques. One of these is the formation of granulomas secondary to dermal fillers; the etiology of these lesions can be difficult to determine, not only because patients neglect to inform us they have undergone cosmetic treatment or they are unaware of the type of material used, but also because the clinical presentation can be similar to that of certain dermatologic diseases.\(^1\) When medicolegal issues arise, the most useful additional test is biopsy, as each material presents a specific histologic pattern,\(^2\) but this is an invasive technique and patients may sometimes reject such tests. Skin ultrasound is an alternative, non-invasive test that, through specific sonographic patterns, can identify the type of material involved and its exact site.

We present the case of a 52-year-old woman who came to outpatients for multiple asymptomatic lesions on the forehead. The first lesions had appeared in the glabellar region 8 years earlier and had remained stable until the year prior to consultation when, coinciding with the appearance of new lesions, she developed recurrent episodes of inflammation that persisted for several days and resolved spontaneously. Physical examination revealed yellowish-pink plaques of 1-2 cm diameter, with well-defined borders, a firm consistency, and a peau d’orange appearance (Fig. 1). The only finding of interest in the patient’s past history was the injection of a filler material 14 years earlier; she was unable to spec-

\(^*\) Please cite this article as: Menis D, Castellanos-González M, Llamas-Martín R, Vanaclocha Sebastián F. Utilidad de la ecografía cutánea en el diagnóstico de las complicaciones por materiales de relleno. Actas Dermosifiliogr. 2014;105:797–798.
results with magnetic resonance, computed tomography, and positron emission tomography. In addition, ultrasound can aid decision-taking regarding subsequent treatment as, for example, the presence of a permanent filler material would contraindicate treatment with interferon. Ultra-
sond can also help us to orient patients about the prognosis as, in contrast to reabsorbable filler materials, granuloma-
tous reactions to permanent materials are unlikely to resolve in less than 6 months. Furthermore, knowledge of the site and nature of a filler material will make it possible to avoid future complications if further interventions are to be per-
formed at the same site. Finally, some authors consider that ultrasound study improves the patient’s awareness of the cosmetic results achieved and, in those patients not convinced of the persistence of an injected material, the ultrasound images can reinforce their perception of the definitive results.

In our opinion, although biopsy continues to be the gold standard for the definitive diagnosis of the side effects of an injected filler material, skin ultrasound is a valid and useful alternative diagnostic method in patients who reject invasive diagnostic tests.

References


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