LASERS

CALCINOSIS CUTIS IN NEW THERAPY WITH RADIOFREQUENCY AND ULTRASOUND

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Background: Calcinosis cutis is a condition of accumulation of calcium salts within the dermis leading to the formation of a calcified mass. This complication has been previously reported in acne vulgaris.

Observations: We report a 34-year-old woman with multiple miliary calcified papules of 3–5 mm in diameter grouped on both cheeks as a sequela of inflammatory acne, after multiple acne treatments with tetracyclines and isotretinoin. Skin ultrasound examination showed the presence of multiple hyperechogenic linear and roundish structures, associated by hypoechogenic shadow. The histology revealed a normal orthokeratotic stratified epithelium within the reticular dermis deposition of a basophilic-circumscribed substance intermingled with thick collagen bundles. Von Kossa stain was positive. Laboratory evaluation did not find alterations in phosphocalcic metabolism, confirming the diagnosis of calcinosis cutis in acne.

The patient was treated with a series of sessions, one week apart, on the most affected cheek (left side) with unipolar radiofrequency of 120 watts up to a temperature of 420 C and a total of 15 KJ, followed by the application of low-power ultrasound, 10 KJ for the whole cheek. After 2 months of treatment, comparative sonographic evaluation corroborated the reduction in size and number of the calcified lesions.

Key message: We propose that the treatment with ultrasound would lead to the destruction of skin calcifications in the same way that it does with kidney stones, enabling their subsequent elimination through the macrophage system.

Given the lack of therapeutic alternatives for calcified nodules in acne, with the exception of the surgical ones, we propose this new therapeutic method for this disorder.