



SKIN MANIFESTATIONS OF INTERNAL DISEASE

PETRIFIED EARS: A CASE REPORT AND REVIEW OF THE LITERATURE

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Background: Petrified ears is an uncommon clinical entity: it describes auricular cartilage hardening, due usually to ectopic calcification or, less commonly, ossification. Only 12 histologically proven cases have been reported in the English-language literature of auricular ossification. The most common causes are frostbite and mechanical trauma. However, endocrinopathies have also been reported to cause ectopic calcium deposition through an unknown mechanism. Addison's disease is the systemic disease most frequently associated, but the exact pathogenesis remains unclear. Patients are usually asymptomatic and the diagnosis is made incidentally when rigid helices are noted on palpation and can be confirmed by radiological imaging. Biopsy can also help to differentiate between calcification and ossification. In asymptomatic patients, no specific therapy is required.

Observation: A 71-years old man was referred for a squamocell carcinoma of the left ear. He recalled stiffening of both ears from 20 years, associated with pain exacerbated in bed at night. He denied a history of ear trauma, frostbite or inflammatory disorders. He had a 18-years history of hypothyroidism and adrenal insufficiency, currently treated with physiologic doses of hydrocortisone. Both ears were stony hard and unmalleable, without any visible external change, apart from the squamocell carcinoma (histologically confirmed). No alterations of the nasal ala were observed. A radiograph and computerized tomography scan showed calcification of the entire auricular cartilage with sparing of the earlobes. Full blood cell count, renal biochemistry, calcium, phosphorus, glucose, acid uric, thyroid function and parathyroid hormone tests revealed normal findings. Histology showed fibrocartilaginous tissue being replaced by lamellar bone. A diagnosis of petrified ears was made.

Key message: Underlying systemic diseases, especially adrenal insufficiency should be considered when patients present with petrified ear auricles: the presence of this condition may be a useful clinical sign, which in these cases preceded the development of endocrinopathies by many years.

