Petrified Ears or Calcified Pinnae

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Clinical Image

Calcification or ossification of the auricular cartilage is also known as 'petrified ears.' This condition was first described by Bochdalek in 1866. It is characterized by partial or total calcification or ossification of the external ear cartilage. The condition may be asymptomatic and picked up on clinical or radiological examination of the patient or it may be symptomatic resulting in discomfort due to stiffness or rigidity of ears. Rarely the overlying skin may show ulceration.

A wide variety of causes for ear cartilage calcification have been reported. The process may involve one or both external ears with sparing of the ear lobes. The common causes include boxing, frostbite, trauma and gout. Many other uncommon conditions are associated with calcified pinnae and these include acromegaly, Addison disease, alkaptonuria, connective tissue diseases, calcium pyrophosphate deposition disease, Cushing’s syndrome, aging, hypercalcemic states, hyperparathyroidism, hypoparathyroidism, hypopituitarism, following infection or inflammation of external ear, Keutel syndrome, relapsing polychondritis, sarcoidosis and rarely syphilitic polychondritis. In a few cases no underlying cause can be established and in that situation the calcification of pinnae is considered as idiopathic.

In the case presented here extensive calcification of bilateral external ear cartilage was noted incidentally during the CT study of cervical spine performed for symptoms of neck pain and stiffness. CT showed features of diffuse idiopathic skeletal hyperostosis (DISH) with extensive ossification of anterior and posterior longitudinal ligaments of cervical spine in addition to heavily calcified ears.