IMAGES IN OTORHINOLARYNGOLOGY

Madelung's Disease

Enfermedad de Madelung

Fátima Jiménez Aragón, a José Manuel Morales Puebla, b,* Tania Corzón Pereira b

a Servicio de Radiología, Hospital General Universitario de Ciudad Real, Ciudad Real, Spain
b Servicio de Otorrinolaringología, Hospital General Universitario de Ciudad Real, Ciudad Real, Spain

Madelung's disease is characterised by the symmetrical accumulation of non-encapsulated, fatty tissue deposits in the neck, shoulders, thorax and proximal region of the limbs (Fig. 1). It is more common in Mediterranean countries and predominantly affects males (15:1). Its aetiology is unknown and it is associated with chronic alcoholism in 60%-90% of patients.

The diagnosis is mainly clinical and is complemented by imaging tests, such as computed tomography (CT) and magnetic resonance imaging (MRI) scans, which accurately confirm the pathology. In a CT scan (Fig. 2) the excess fat is characterised by non-encapsulated, homogeneous proliferation of tissue with a low attenuation value (*), similar to normal fat, which is distributed throughout the different cervical layers, without nodules or anomalous enhancements. The MRI scan shows an increase of fatty tissue, characterised by a homogeneous signal hyperintensity (#) in both T1-weighted (Fig. 3A) and T2-weighted sequences (Fig. 3B), which extends across all cervical layers from the submandibular space to the

![Figure 1](image1.png)

![Figure 2](image2.png)
posterior cervical space. Furthermore, imaging tests enable assessment of the degree of stenosis or displacement of large vessels, submandibular glands, muscles and trachea and its differentiation into lipomas, obesity and other pathologies included in the differential diagnosis, such as thyroid alterations, cervical cysts, benign and malignant tumours, “buffalo neck”, lymph node metastasis or lymphoproliferative diseases, among others. Treatment is conservative in most cases and alcohol withdrawal is recommended. Surgical treatment and liposuction are reserved for patients with functional impairment or significant cosmetic affectation.