

Image-Based Diagnosis of Cervical Hibernoma

Víctor Palomar-Asenjo, Antonio Ruiz-Giner, and Víctor Palomar-García

Institut de Recerca Biomèdica de Lleida, Hospital Universitari Arnau de Vilanova, Lleida, Spain

Hibernomas are infrequent benign tumours derived from remnants of foetal brown fat. Brown fat is common in hibernating animals and in the human foetal period, but it generally disappears in the first weeks of life.

At the clinical level, it usually presents as a slow-growing asymptomatic mass that may cause symptoms due to the compression of nearby structures.

We report here on a 58-year-old male with a left supraclavicular tumour growing slowly over the last year. He brought a computerized tomography (CT) scan (Figure 1) in which it was possible to see an intermediate-density lesion between the muscle and adipose tissue, with prominent vascularization and moderate uptake of contrast. The radiologist recommended the taking of a magnetic resonance image. This image showed a lesion with well-defined edges, about 6 cm in diameter, in contact with the left brachial plexus and the left subclavian artery (Figure 2). This lesion showed hyperintensity on T1 (although slightly less intense than subcutaneous fatty tissue) and an intermediate signal on T2. After administration of gadolinium, linear uptake was observed inside it. In addition, there was a notable permanence of the signal in the fat suppression sequences. The radiologist proposed hibernoma as the first diagnosis, without discarding other adipose tumours with a considerable stromal component.

After excision of the tumour by cervicotomy, the histological study showed a proliferation of large multi-vacuolate cells with a central nucleus and a prominent nucleole, characteristic of hibernomas, alternating with mature adipose cells (Figure 3). The histological diagnosis thus confirmed the initial diagnosis indicated by the radiologist.



Figure 1.



Figure 2.



Figure 3.

Correspondence: Dr. V. Palomar-Asenjo.
Avda. Alcalde Rovira Roure, 80. 25198 Lleida. España.
E-mail: vpalomara@hotmail.com

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