

Lipoma

Lipomas (lipomata) are slow-growing, benign, adipose tumours that are most often found in the subcutaneous tissues. They may also be found in deeper tissues such as the intermuscular septa, the abdominal organs, the oral cavity, the internal auditory canal, the cerebellopontine angle and the thorax. Most lipomas are asymptomatic, can be diagnosed with clinical examination and do not require treatment.

Epidemiology^[1]

- Lipomas may be seen in all age groups, but usually first appear between 40 and 60 years of age.
- Solitary lipomas are more common in women. Multiples - referred to as lipomatosis - are more common in men.
- They have an estimated annual incidence of one per 1,000 of the population.
- Congenital lipomas have been observed in children^[2] .

Variants

Familial multiple lipomatosis

This is an autosomal dominant condition found most frequently in men. It is characterised by widespread symmetrical lipomas appearing most often over the extremities and trunk^[3] .

Gardner's syndrome

Lipomatosis may also be associated with Gardner's syndrome, an autosomal dominant condition involving intestinal polyposis, cysts and osteomas^[4] .

Dercum's disease

This is also known as adiposis dolorosa. It is rare and characterised by the presence of irregular painful lipomas, most often found on the trunk, shoulders, arms, forearms and legs. It is at least five times more common in women than it is in men and is often found in middle age. It also has asthenia and psychiatric disturbances as other prominent features^[5] .

Madelung's disease

This is also known as benign symmetric lipomatosis. It is lipomatosis of the head, neck, shoulders and proximal upper extremities. Madelung's disease, often presents in men who drink excess alcohol, who may present with the characteristic 'horse collar' cervical appearance. Rarely, these patients experience swallowing difficulties, respiratory obstruction and even sudden death^[6] .

Post-traumatic lipomas

Lipomas have been reported that have developed following blunt trauma. It is thought that at least some of these are due to herniation of fat through torn fascia. The resulting swelling is referred to as a 'pseudo-lipoma'^[7] .

Liposarcoma

Malignancy is rare but can be found in a lesion with the clinical appearance of a lipoma. Liposarcoma presents in a fashion similar to that of a lipoma and appears to be more common in the retroperitoneum, on the shoulders and lower extremities.

Some recommend complete excision of a lipoma to exclude a possible liposarcoma, especially in fast-growing lesions. Pre-operative radiography may be a suitable alternative in some cases^[8] . Both ultrasound and magnetic resonance imaging (MRI) have been used with some success to differentiate lipomas and liposarcomas but are not entirely reliable^[9] ^[10] . Other modalities such as computerised tomography (CT) scanning are occasionally required^[11] . Alternatively, fine-needle aspiration may be used to evaluate suspicious lesions^[12] . National Institute for Health and Care Excellence (NICE) guidelines of 2015 advise urgent ultrasound for unexplained soft tissue lumps which are increasing in size, with two-week wait referral if ultrasound findings are suspicious or uncertain (within 48 hours for children)^[13] .

Tumours that have characteristics consistent with a malignant liposarcoma include those that are^[14] :

- Greater than 5 cm in diameter.
- Located in the extremities, retroperitoneally, in the groin, in the scrotum or in the abdominal wall.
- Deep (beneath or fixed to superficial fascia).
- Exhibiting malignant behaviour (rapid growth or invasion into nerve or bone).

In September 2020 and January 2021, NICE updated its suspected cancer recognition and referral guidance. However, no changes in these versions relate to this article^[13] .

Presentation

- A lipoma is usually a soft or firm nodule, size 0.5-10 cm, with a smooth normal surface and skin-coloured.

- While about 80% of lipomas are less than 5 cm in diameter, some can reach more than 20 cm and weigh several kilograms.



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- They are usually situated deep in the fatty layer with normal skin overlying them and should be mobile beneath the surface.
- They are round or irregular in shape and may be single or multiple.
- Lipomas usually present as non-painful, round, mobile masses with a characteristic soft, doughy feel.
- Most lipomas are asymptomatic but they can cause pain when they compress nerves.

Diagnosis

This is usually made on clinical appearance alone. Any doubt should prompt referral for imaging or specialist opinion. Ultrasound, MRI and CT scans are all used, depending on availability and index of suspicion. MRI is the imaging method of choice ^[15]. Biopsy is not usually required if MRI is available.

Differential diagnosis

- [Epidermoid cyst](#) - these may be differentiated by the punctum in their surface and also by their site in the dermis, attached to the surface.
- Subcutaneous tumours.
- Nodular fasciitis.
- Liposarcoma.
- Metastatic disease.
- [Erythema nodosum](#).
- Nodular subcutaneous fat necrosis.
- Weber-Christian panniculitis (recurring inflammation in the fat layer of the skin).
- Vasculitic nodules.
- Rheumatic nodules.
- [Sarcoidosis](#).
- Infections - eg, onchocerciasis.
- Haematoma.

Management

- They can be left alone. The size usually plateaus after initial growth.
- They may need to be removed for cosmetic reasons, because of compression of surrounding structures or if the diagnosis is uncertain.
- Because lipomas generally do not infiltrate into surrounding tissue, they can usually be shelled out easily during excision.
- Minimal scarring can be achieved with a technique called segmental extraction - a small stab incision followed by blind dissection of the lipoma and extraction in a segmental fashion ^[10] .

- Non-excisional treatment of lipomas includes steroid injections and liposuction^[10].

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