

# An Incidentally Found Neck Mass

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## Abstract

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Title Page

Clinical Picture:

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## Key Clinical Message:

This case highlights the anterior neck as an unusual location for a lipoma. It is often mistaken for a thyroid nodule as they typically are located on the posterior or lateral neck. It also emphasizes the accuracy of fine needle aspiration (FNA) in diagnosing lipomatous tumors.

**Key words:**

Neck mass, lipoma, fine-needle aspiration, thyroid

### **Clinical vignette:**

63 year-old man presented for diabetes management. Physical examination revealed a anterior 3-cm neck mass. Ultrasound showed a 3.1x1.4x2.7 cm oval-shaped mass without internal vascularity and microcalcification along the superior thyroid (Fig 1A). FNA showed red blood cells, peripheral leukocytes with no thyroid follicular cells or colloid (Fig 1B). Neck MRI showed a 3.1-cm mass along the anterior aspect of the left thyrohyoid muscle without intrinsic complex features and no abnormal enhancement (Fig 2). A repeat FNA showed positive oil-red-O stain (Fig 3A). Because of the enlarging neck mass patient elected for surgery. Histology demonstrated a fibrous capsule surrounding a homogenous proliferation of adipocytes classic for a lipoma (Fig 3B).

Only 25% lipomas develop in the head or neck region. The FNA material can easily be washed off the slide by alcohol during preparation which is consistent with past reports describing histopathology of lipomas as fat lobules with clear cytoplasm, scant cellular material and fibrous material (1). One study demonstrated an overall sensitivity of 96% and specificity of 98% in diagnosing soft tissue tumors by FNA (2). MRI is an accurate way to confirm lipoma if suspicion is present.

This case highlights the anterior neck as an unusual location for a lipoma often mistaken for a thyroid nodule as they typically are located on the posterior or lateral neck as well as the accuracy of FNA in diagnosing lipomatous tumors.

### **Authorship List:**

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### **Abbreviations:**

MRI: magnetic resonance imaging

FNA: fine needle aspiration

### **Figures Legend:**

Figure 1: Neck ultrasound with a 3.1x1.4x2.7 cm oval-shaped mass without internal vascularity and microcalcification along the superior thyroid

Figure 2: A cytology smear of the FNA demonstrated an acellular specimen

Figure 3: Neck MRI showed a 3.1-cm mass along the anterior aspect of the left thyrohyoid muscle without evidence of intrinsic complex features and no abnormal enhancement

Figure 4: An oil red O stain demonstrates lipid droplets

Figure 5: Histologic sections of the mass demonstrate a fibrous capsule surrounding a homogenous proliferation of adipocytes, classic for a lipoma.



