

SPECIAL SONO-CASE

Ultrasound of a Dorsocervical Mass in a Patient Receiving Antiretroviral Therapy

Distinguishing diffuse fat-pad hypertrophy from a discrete lipoma or suspicious soft-tissue mass

CLINICAL CHALLENGE A 49-year-old patient living with HIV presents with progressive dorsocervical fullness (“buffalo hump”) while receiving long-term antiretroviral therapy.

Clinical context

Key element	Finding
Clinical detail 1	Well-controlled HIV
Clinical detail 2	Long-term ART exposure
Clinical detail 3	Painless dorsocervical enlargement
Clinical detail 4	No fever, drainage, or neurologic symptoms

Learning objectives

- Perform a safe, focused examination adapted to the altered anatomy or clinical context.
- Recognize the principal diagnostic pattern and its most important mimics.
- Document limitations and communicate a clinically actionable impression.

Scanning protocol

- Use a high-frequency linear transducer; survey the palpable area and adjacent normal subcutaneous fat.
- Assess whether the process is diffuse/unencapsulated or a discrete circumscribed mass.
- Document echotexture, dimensions, compressibility, depth, fascial involvement, and vascularity.
- Correlate with medication history and broader metabolic/endocrine assessment; ultrasound does not determine drug causality.

Sonographic findings

- Diffuse thickening of the dorsocervical subcutaneous fat measures up to 3.6 cm without a discrete capsule.
- Echotexture is similar to adjacent fat with minimal internal vascularity.
- No solid nonfatty component, fluid collection, or fascial invasion is present.

Diagnostic reasoning

The diffuse, nonencapsulated fatty proliferation supports dorsocervical fat-pad hypertrophy rather than a discrete lipoma. The clinical team should consider ART-associated lipodystrophy and alternative endocrine/metabolic causes.

Suggested report

IMPRESSION Diffuse nonencapsulated dorsocervical fatty thickening without a discrete mass, collection, or suspicious vascular component. Appearance is compatible with dorsocervical fat-pad hypertrophy in the appropriate clinical context. Correlate with medication history and metabolic/endocrine evaluation.

Pitfalls and quality checks

- Attributing the finding to ART without excluding other causes.
- Calling diffuse fat a lipoma without a capsule.
- Failing to scan for a nonfatty component.

ARDMS-style review questions

A lipoma is more likely to be:

- A. Discrete and circumscribed
- B. Diffuse without margins
- C. Anechoic with enhancement
- D. Pulsatile

Answer: A

Ultrasound can establish ART causality:

- A. No
- B. Always
- C. Only with color Doppler
- D. Only if RI is high

Answer: A

Teaching takeaway

KEY POINT The diffuse, nonencapsulated fatty proliferation supports dorsocervical fat-pad

hypertrophy rather than a discrete lipoma. The clinical team should consider ART-associated lipodystrophy and alternative endocrine/metabolic causes.

References and guidance

- U.S. Department of Health and Human Services HIV clinical guidance on adverse effects of antiretroviral therapy.
- AIUM Practice Parameter for Documentation of an Ultrasound Examination.

This fictional, de-identified composite case is intended for professional education. It does not replace local protocols, qualified interpretation, specialist consultation, or patient-specific medical care. Rare procedures and research settings require institution-specific guidance.