SPECIAL SONO-CASE

Penile Transplant Recipient With Suspected Inguinal Hernia

Protecting transplant vascular anatomy while performing a dynamic groin examination

CLINICAL CHALLENGE A 41-year-old penile transplant recipient presents with intermittent groin bulging and discomfort during standing and coughing.

Clinical context

Key element	Finding
Clinical detail 1	Prior penile allotransplantation
Clinical detail 2	New reducible groin bulge
Clinical detail 3	Symptoms increase with Valsalva
Clinical detail 4	No penile ischemic 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

- Review operative anatomy and transplant vascular anastomoses before scanning.
- Perform dynamic inguinal ultrasound supine and standing, at rest and with Valsalva.
- Identify inferior epigastric vessels, deep ring, spermatic cord, hernia contents, neck, reducibility, and tenderness.
- Avoid prolonged compression over transplant vascular pedicles; add targeted penile Doppler if graft perfusion symptoms are present.

Sonographic findings

- A right indirect inguinal hernia containing fat and a short segment of bowel protrudes through the deep ring during Valsalva.
- The hernia reduces when supine; no wall thickening, fluid, or impaired peristalsis is seen.
- Targeted transplant arterial and venous flow is preserved without focal aliasing.

Diagnostic reasoning

Dynamic findings confirm a reducible indirect inguinal hernia without sonographic evidence of incarceration. Transplant vascular patency is preserved.

Suggested report

IMPRESSION Reducible right indirect inguinal hernia containing fat and transient bowel, elicited with standing Valsalva. No sonographic evidence of incarceration. Visualized penile transplant arterial and venous flow remains patent. Surgical and transplant-team correlation is recommended.

Pitfalls and quality checks

- Scanning only supine and missing the hernia.
- Compressing the transplant vascular pedicle.
- Failing to distinguish direct from indirect relationship to inferior epigastric vessels.

ARDMS-style review questions

An indirect hernia lies:

- A. Lateral to inferior epigastric vessels
- B. Medial to them
- C. Inside the femoral vein
- D. Within the rectus muscle

Answer: A

Best maneuver for an intermittent hernia:

- A. Standing Valsalva
- B. Breath holding supine only
- C. No compression or motion
- D. Carotid compression

Answer: A

Teaching takeaway

KEY POINT Dynamic findings confirm a reducible indirect inguinal hernia without sonographic evidence of incarceration. Transplant vascular patency is preserved.

References and guidance

- AIUM Practice Parameter for the Performance of Penile Ultrasound.
- ACR Appropriateness Criteria: Hernia.

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.