



Partial Lymphatic Obstruction of the Left Upper Limb Mimicking Thoracic Duct Obstruction in a Hemodialysis Patient

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INTRODUCTION

Thoracic duct obstruction is a rare but important cause of upper limb swelling and discoloration and may mimic venous pathology. In end-stage renal disease patients on hemodialysis with arteriovenous fistula (AVF), lymphatic complications are uncommon and often overlooked. Distinguishing venous from lymphatic causes prevents unnecessary invasive interventions.

METHODS

- Clinical assessment and vascular examination
- Laboratory evaluation
- CT angiography (CTA)
- Chest ultrasound and contrast-enhanced CT chest
- Lymphoscintigraphy (Tc-99m nanocolloid)
- Conservative management with strict lipid restriction and follow-up

RESULTS

- 46-year-old female with ESRD on HD via left upper-limb AVF presented with severe pain, swelling, and bluish discoloration.
- CTA: no central venous stenosis.
- Chest US: no pleural effusion; CT chest inconclusive for thoracic duct pathology.
- Lymphoscintigraphy: partial lymphatic obstruction distal to AVF; no abnormal tracer in neck/chest (no thoracic duct obstruction).
- Outcome: marked clinical improvement after complete dietary lipid abstinence within 3 weeks.

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