



CT Lymphangiography for Chylothorax.

63-years old, CKD on dialysis for 4 years developed bilateral chylothoraces 3 months ago and was referred for a CT lymphangiogram (CTL).

PET/CT 2 weeks ago showed complete SVC occlusion with extensive chest wall and bronchial artery collaterals (Fig. 1). A permacath had been introduced last year.

There are many techniques of lymphangiography.

- Dynamic contrast MRI after inguinal node cannulation
- CT lymphangiography - Lipiodol injection after inguinal node cannulation
- Webspace cannulation and injections - MRI and CT
- CT lymphangiography – non-ionic iodinated contrast after inguinal node cannulation

CTL with intranodal injection of non-ionic iodinated contrast is a relatively new technique. This involves USG guided cannulation of an inguinal node with a 25G needle and then injection of 5 cc of 1:1 diluted non-ionic contrast and rapid scanning.

Getting a USG machine into the CT scanner is however a challenge for many of us.

The PET showed central retroperitoneal nodes (Fig. 2). It was decided to cannulate this node (Fig. 3) and injection of contrast opacified the lymphatic duct. On the 4 minutes scan, the lymphatic duct was ectatic and disrupted with

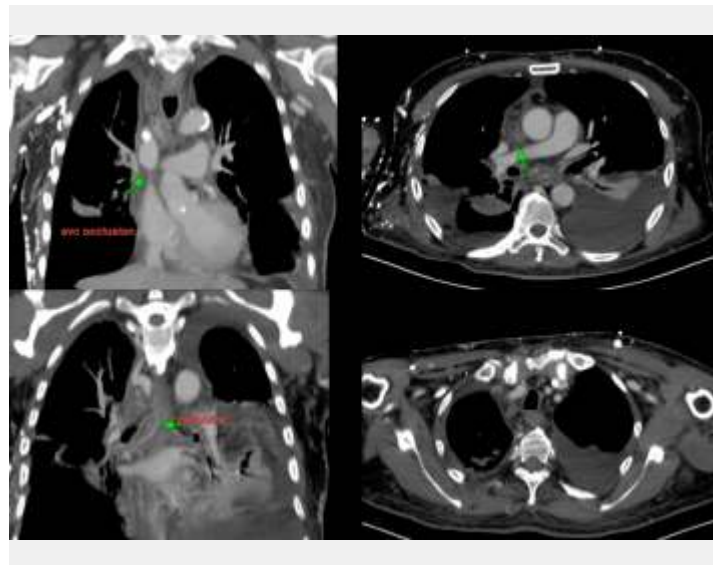


Fig. 1: CT scans show SVC obstruction with collaterals and bilateral chylothoraces.

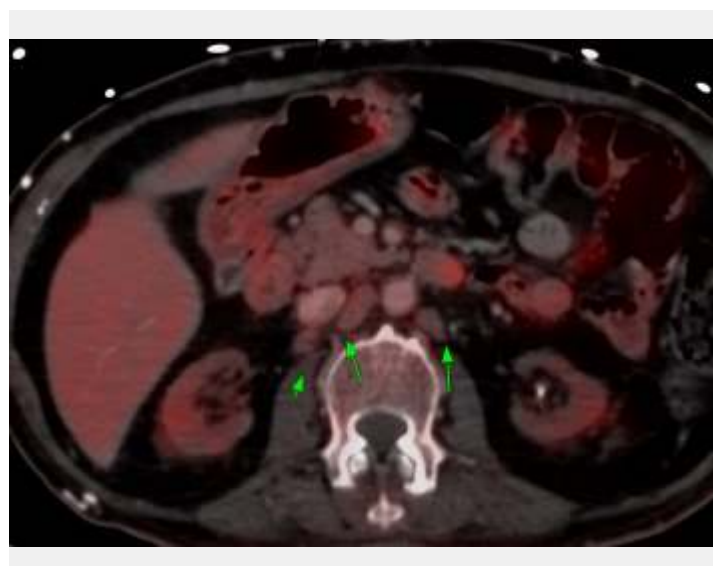


Fig. 2: PET/CT shows retroperitoneal nodes with minimal uptake.

**At a glance**

- ◆ Lymphangiography has been a challenging technique for many decades.
- ◆ CT lymphangiography using regular non-ionic iodinated contrast injected into an inguinal or a mesenteric or retroperitoneal node is a simpler technique that gives results in a few minutes.

patchy dilatation and extended up to D5-6, after which it was not visualized (Fig. 4).

This patient had central line induced SVC obstruction causing lymphatic disruption most marked at D5-6, causing bilateral chylothoraces. He had pleurodesis on one side and eventually spontaneously stopped leaking.

CT lymphangiography can now be easily performed by injecting non-ionic iodinated contrast into a node proximal to the site of obstruction and then scanning within 2-5 minutes.

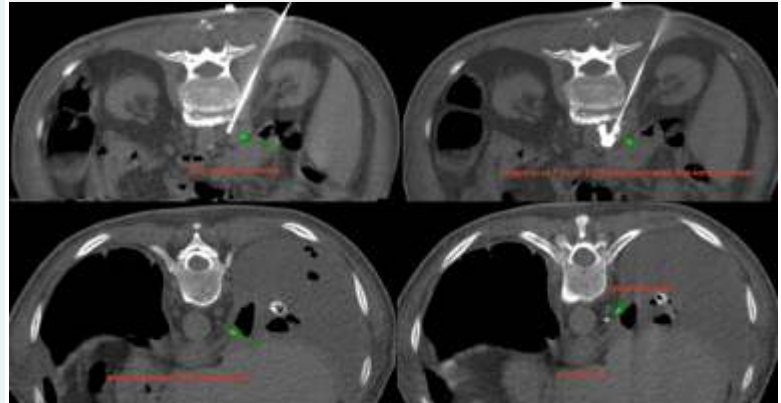


Fig. 3: CT lymphangiography technique using a 20G spinal needle and injection of 1:1 diluted non-ionic iodinated contrast.

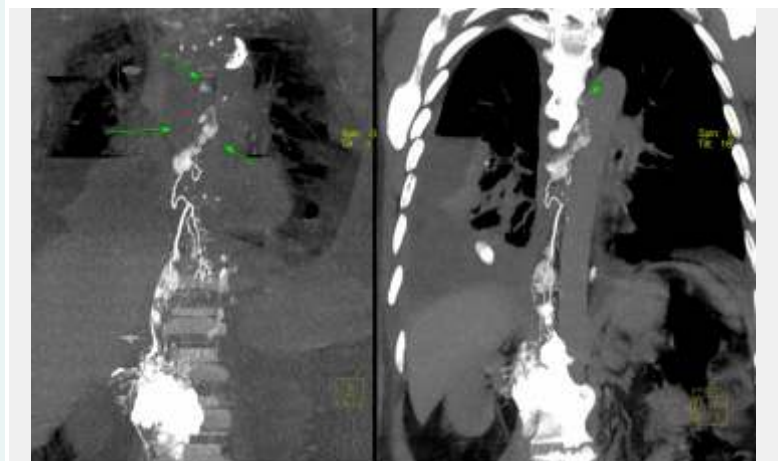


Fig. 4: CT lymphangiogram. The chylolymphatic duct is well seen and shows ectasia and disruption at the D5-6 level.

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Printed, Published & Owned by Dr Bhavin Jankharia,

Printed at : India Printing House, First Floor, 42, G D Ambedkar Marg, Opp. Wadala Post Office, Wadala, Mumbai 400 031

Published from: Dr Jankharia's Imaging Centre, Bhaveshwar Vihar, 383, Sardar V P Road, Prarthana Samaj, Mumbai 400 004, M.S.,

Editor: Dr. Bhavin Jankharia