

# Intranodal lymphangiogram for post-operative pelvic lymph leak

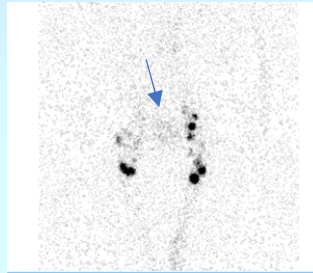
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**Objective and method:** This is a case study to review the procedural finding and outcome of intranodal lymphangiogram (INL) for post-operative pelvic lymph leak.

## Case history:



A 74-year-old man with prostatic cancer underwent radical prostatectomy with bilateral pelvic lymph node dissection

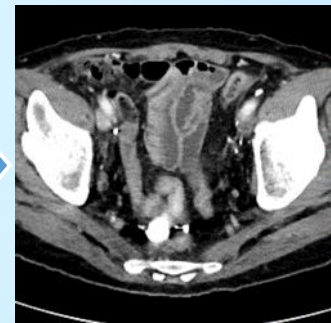
Post-operatively complicated with chylous ascites with persistent high output up to 1500ml/day

Lymphoscintigraphy: abnormal uptake in the pelvic cavity (arrow), confirming lymph leak.

CT of pelvis: mild ascites, no loculated fluid collection or lymphocele.



Drain output was decreasing trend, down to <20ml/day at 2 weeks after procedure.



INL via bilateral groin lymph node: lymph leak from right pelvic sidewall lymphatics (arrow) with pooling of lipiodol at the rectovesical pouch (bracket). Embolization was not attempted in view of collaterals and retrograde lymphatic drainage into the right lower limb, which increased the risk of lower limb lymphedema.

CT of pelvis 2 week later: trace ascites with lipiodol stain, no fluid collection.

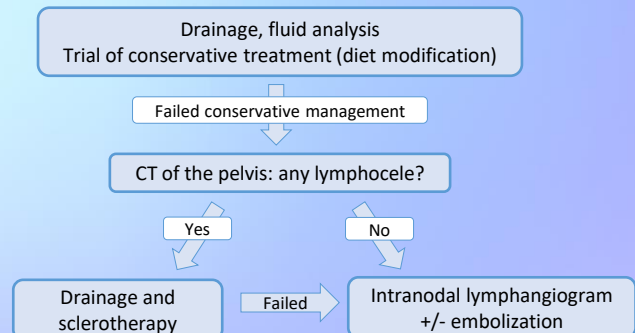
## Discussion:

Post-operative lymph leak is a common complication following oncologic surgery involving pelvic lymph node dissection. It can be resulted from direct injury to the lymphatic channel, or obstruction to the lymphatic channel with development of leaky collaterals. Persistent high output lymph leak, usually defined as >1000-1500ml/day for over 5 days, are generally indicated for treatment. Management options includes drainage, sclerotherapy and lymphangiogram +/- embolization.

INL is performed with injection of lipiodol via groin lymph node. Lipiodol is a sclerosing agent itself as it triggers inflammatory and granulomatous reaction at site of extravasation, which attributes to its embolization effect. Clinical success of INL alone was reported to be 70%, which dropped to 35% in high output cases, usually defined as >500ml/day.

There is a risk of pulmonary embolism with >20ml of lipiodol and thus the volume of injection must be monitored. Another complication is lower limb lymphedema, which often resolves with conservative treatment.

### Proposed management algorithm for post-operative pelvic lymph leak



**Conclusion:** Intranodal lymphangiogram is effective in localizing and treating post-operative pelvic lymph leak.