

LIPIODOL RETENTION MASQUERADING AS TALCUM POWDER IN MAMMOGRAPHY

¹*Soo Tze Hui, ¹Anas Tharek, ¹Idris Ibrahim, ¹Mohd Hazeman Zakaria, ¹Mohd Naim Mohd Yaakob, ¹Mohd Fandi Al Khafiz Kamis

¹Universiti Putra Malaysia

*Corresponding author:

Soo Tze Hui, Universiti Putra Malaysia Tel: +60397695001 Email: suzyhui88@upm.edu.my

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ABSTRACT:

Lipiodol (also known as ethiodized oil) is an iodinated poppy seed oil first synthesized in 1901 for therapeutic purposes. The use of lipiodol in lymphangiography in later date has gain popularity as this agent tend to retain in the lymphatic system as opposed to other iodinated hydrosoluble contrast media that diffuse out of lymphatic system rapidly. Over the course of several days and weeks, the iodine within the lipiodol is released by enzymatic cleavage and the fat molecules are degraded. In our case, there is retention of lipiodol in the left axilla which showed as group of round calcifications in Mammogram. This has raised the suspicion of talcum powder usage for the reporting radiologist without revisiting the past surgical and medical procedure. Even though lipiodol washout is a time-dependant process, it can retain in our body or site of injection as long as few years as evidenced in our case.

Keywords: Angiography, Arterial cannulation, Angioseal.

NARRATIVE:

79 years old female with history of right breast carcinoma had large amount of milky drainage (approximately 700ml/day) in the indwelling catheter post mastectomy and axillary clearance in June 2020. Lymphangiogram of bilateral upper limbs was carried out at that time which confirmed the diagnosis of iatrogenic lymphorrhea (Figure 1). Post operative iatrogenic lymphorrhea is an extremely rare complication. Lipiodol (also known as ethiodized oil) is an iodinated poppy seed oil first synthesized in 1901 for therapeutic purposes. It was historically used for bronchography, dacryography, hysterosalpingography (HSG), sialography,

fistulography, urethrography and cystography before 1952. ¹ The use of lipiodol in lymphangiography in later date has gain popularity as this agent tend to retain in the lymphatic system as opposed to other iodinated hydrosoluble contrast media that diffuse out of lymphatic system rapidly. Over the course of several days and weeks, the iodine within the Lipiodol is releases by enzymatic cleavage and the fat molecules are degraded. ² This process might take longer time in case of larger Lipiodol collection. In our case, lymph leakage ceased within 2 days after lymphangiography. No further embolization is needed for the right lymphorrhea.

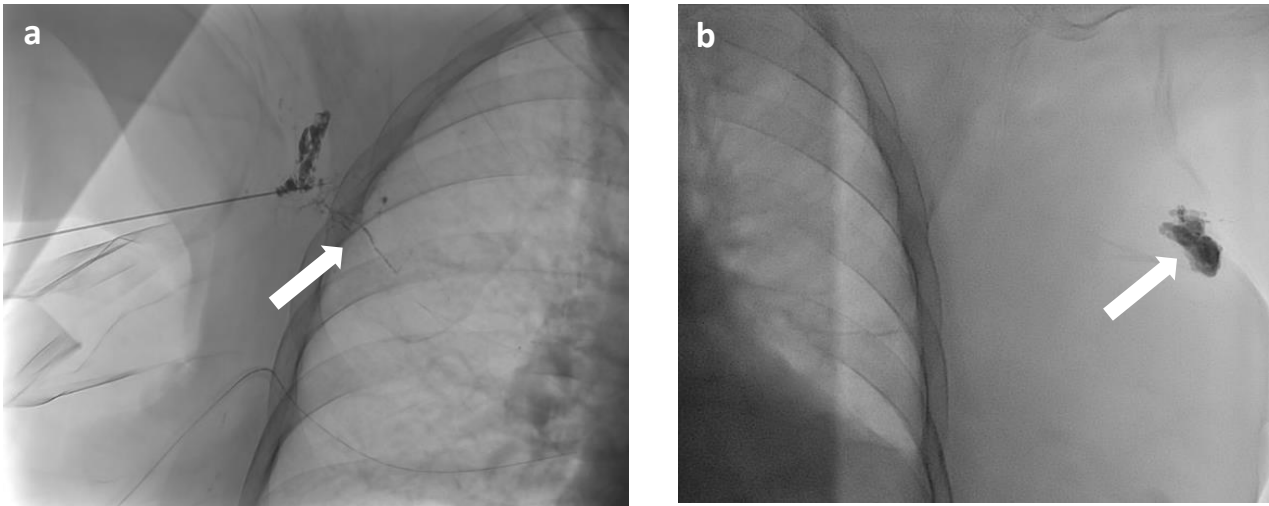


Figure 1: Upper limbs lymphangiogram in right (a) and left (b) axilla show lipiodol uptake into the lymphatic system from direct injection of lipiodol into the mastectomy site with opacified lymphatic vessels (arrow in a). Retention of lipiodol in left axillary lymph node (arrow in b) from direct puncture of lymph node (transnodal approach).

Subsequently, she returns to hospital for yearly mammogram screening which showed group of round calcifications in the left axilla (indicated with circle in figure 2) which was absent in previous study. Otherwise, there was no suspicious breast lesion seen. Patient is keeping well with no new complain. This has raised the

suspicion of talcum powder usage for the reporting radiologist without revisiting the past surgical and medical procedure. In conclusion, there is lipiodol retention in the mastectomy site even after 1 year 3 months that masquerading as group of calcifications on mammography.



Figure 2: Left breast Mammogram in mediolateral oblique view show group of calcification in the left axilla. No suspicious breast lesion.

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