

## Images in Gynecologic Surgery

# Residual Peritoneal Lipiodol after HyCoSy Can Mimic Pelvic Inflammatory Disease or Endometriosis

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A 39-year-old subfertile patient had a diagnostic laparoscopy 7 weeks after a hysterocontrast sonography (HyCoSy) with lipiodol infusion.

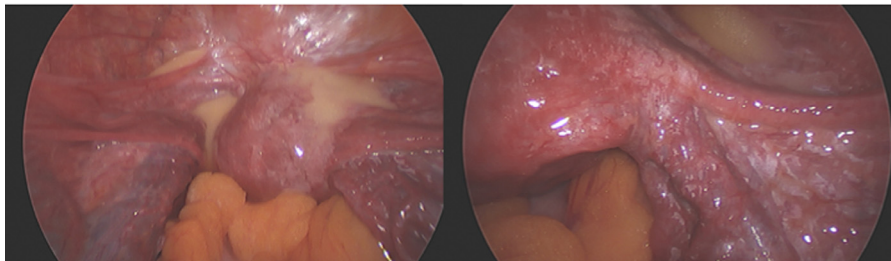
The inspection of the pelvis showed the presence of a purulent liquid in the vesico-uterine cul-de-sac and some superficial waxy deposits on the broad ligaments (Fig. 1). A vesicular miliary pattern was observed and biopsied in the pouch of Douglas (Fig. 2). There was no trace of salpingitis or peri hepatitis.

The pus was sampled for microbiological examination and remained sterile; cytologic examination documented occasional macrophages and red blood cells with fibrin.

The initial interpretation of the biopsy suggested localized aggregates of decidualized stromal cells consistent with endometriosis. As the presentation was discordant, the pathologist was informed of the recent infusion of lipiodol, and additional levels were performed with immunohistochemistry. The CD68 marker was present in the

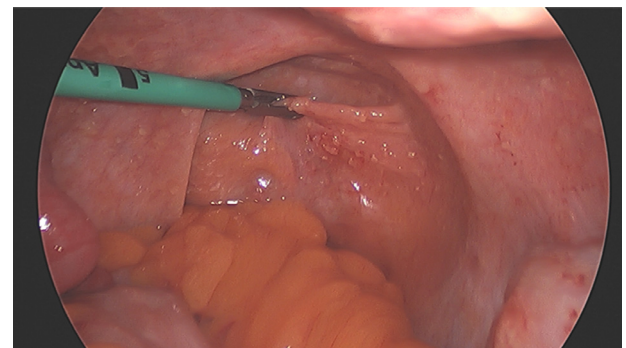
**Fig. 1**

Purulent liquid in the vesico-uterine cul-de-sac and waxy deposits on the broad ligaments.



**Fig. 2**

Vesicular miliary pattern in the pouch of Douglas.



The authors declare that they have no conflict of interest.

This case report involves the description of one patient; it does not constitute human subjects research and is therefore exempt from the institutional review board.

The consent of the patient for the publication of the pictures and slides has been gained.

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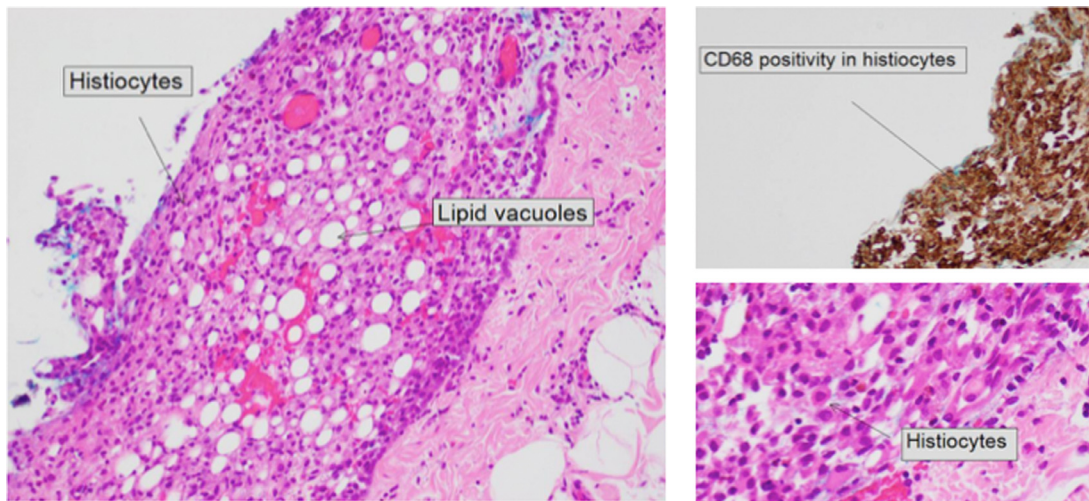
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**Fig. 3**

Histopathological findings compatible with a lipogranuloma.



polygonal cells thought to be stromal cells and corrected the diagnosis, proving that they were in fact histiocytes. Fat vacuoles were also noted, and a final diagnosis of lipogranuloma was made (Fig. 3).

### Discussion

Lipiodol is an oil-based contrast solution used commonly for hysterosalpingography, and 85 cases of oil remnants have been reported in the literature [1]. A lipogranuloma is a granulomatous inflammatory soft tissue reaction, consisting of lipid deposition and/or an oil-like substance. Two lipogranulomas after hysterosalpingography have been previously reported as a consequence of the accumulation of lipiodol in a hernia sac [2], and they can mimic endometriotic deposits [3]. Although infrequent, it is plausible that they may go underreported in the absence of systematic biopsies.

Our observation is a reminder that lipiodol instilled into the pelvis at hysterosalpingography can persist for

prolonged periods and create lesions resembling pelvic inflammatory disease or endometriosis.

Gynecologists should be familiar with these potential pitfalls and have a low threshold for systematic biopsies. The attention of the pathologist should also be brought to the previous use of an oil-based contrast as it may change their strategy and make them use specific immunohistochemical markers.

### References

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