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Case Report

Foreign body granuloma mimicking malignancy: a diagnostic challenge post-caesarean section

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ABSTRACT

Foreign body granulomas arising from haemostatic agents such as oxidized regenerated cellulose (Surgicel) are rare but can closely mimic malignancy on imaging, resulting in unnecessary investigations, delays in treatment, and significant patient anxiety. Authors report the case of a 33-year-old para 1 woman who presented with lower abdominal pain and urinary symptoms eight months after elective caesarean section in which Surgicel was used. Imaging studies suggested a malignant mass involving the cervix, bladder, and vagina, with suspicious lymphadenopathy. Cystoscopy and drainage procedures were inconclusive. Exploratory laparoscopy revealed a 7×5 cm organized mass containing gelatinous material in the uterovesical pouch. Histopathology confirmed a foreign body granuloma with giant cell reaction to suture material. The patient recovered uneventfully following excision. Postoperative suture granulomas should be considered in the differential diagnosis of pelvic masses following caesarean section or other gynecological surgeries where haemostatic agents have been used. Early recognition can prevent unwarranted investigations and improve patient outcomes.

Keywords: Surgicel, Foreign body granuloma, Suture granuloma, Caesarean section, Pseudotumor

INTRODUCTION

Foreign body granulomas are chronic inflammatory reactions to retained surgical material such as sutures, sponges, or haemostatic agents. Though rare, they present a diagnostic dilemma as they often mimic neoplastic processes clinically and radiologically. Oxidized regenerated cellulose (Surgicel) is commonly used in gynecological surgeries for haemostasis, but at times it may lead to granulomatous reactions.[1,2] Authors present a case of Surgicel-induced granuloma mimicking as pelvic malignancy after caesarean section.

CASE REPORT

A 33-year-old woman, para 1, presented with lower abdominal pain and urinary complaints eight months after undergoing elective caesarean section. Surgicel had been used intraoperatively to control bleeding in the lower uterine segment. On examination, a 4×5 cm tender mass was palpable in the anterior fornix. Blood investigations were unremarkable.

Ultrasonography revealed a hyperechoic cervical mass extending to the bladder (Figure 1). CT scan demonstrated obliteration of the fat plane between the uterus and bladder, suggesting possible malignant infiltration (Figure 2). MRI showed a necrotic lesion in the uterovesical pouch involving the cervix, bladder wall, and vagina, along with a suspicious pelvic lymph node. The multidisciplinary team meeting was in favour of a malignant etiology. Cystoscopy with biopsy and interventional radiology drainage were inconclusive, showing only inflammatory changes. Exploratory laparoscopy identified a 7×5 cm organized mass with gelatinous content in the uterovesical pouch (Figure 3). The mass was excised and sent for examination. Histopathological analysis confirmed a foreign body granuloma with multinucleated giant cell reaction to suture material (Figure 4). The patient recovered well, with complete resolution of symptoms.

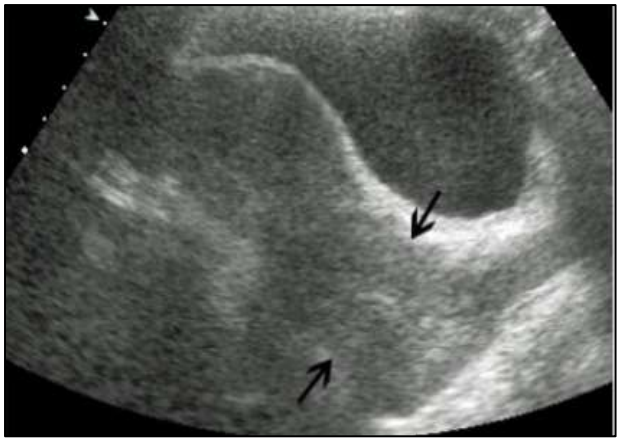

Figure 1: Ultrasound showing hyperechoic cervical mass extending towards the bladder.

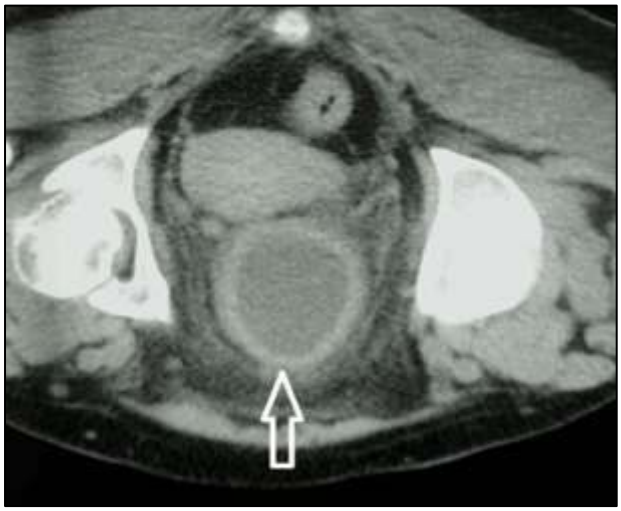

Figure 2: CT scan depicting obliteration of fat plane between uterus and bladder, suggesting possible infiltration.

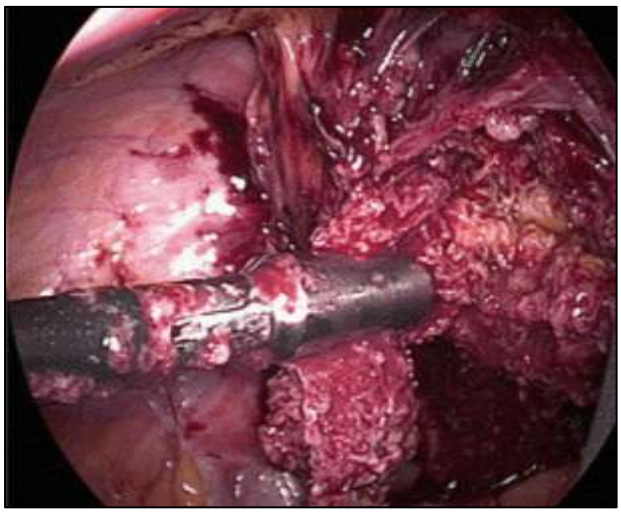

Figure 3: Intraoperative laparoscopic view of organized 7×5 cm mass with gelatinous content in the uterovesical pouch.

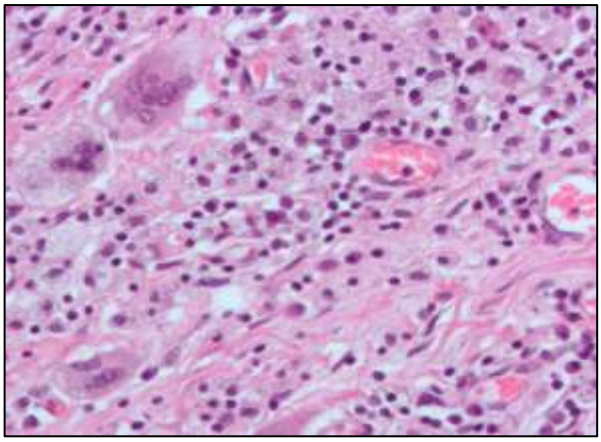

Figure 4: Histopathological slide showing foreign body granuloma with multinucleated giant cell reaction to suture material.

DISCUSSION

Foreign body granulomas due to haemostatic agents are uncommon but clinically significant, as their imaging appearance often mimics malignancy. In this case, the lesion was initially suspected to be a locally advanced pelvic tumor with lymph node involvement, leading to extensive investigations and patient anxiety. Surgicel is designed to be absorbed within 4–8 weeks. However, in some cases, absorption is delayed and triggers granulomatous inflammation.[3]

These lesions often appear as irregular mass-like lesions with apparent infiltration, resulting in diagnostic confusion. Previous reports highlight similar cases where Surgicel granulomas mimicked recurrent or new malignancy, necessitating invasive procedures before a benign diagnosis was established.[1,2]

Clinicians should maintain a high index of suspicion, especially in postoperative patients presenting with mass lesions after haemostatic agent use.[4] Absence of vascularization within the hyperechoic component can serve as an important indicator. When imaging and biopsies are inconclusive, exploratory surgery with histopathology remains the gold standard for diagnosis.

CONCLUSION

Surgicel generally appears as hyperechoic lesion with no vascularization with or without posterior acoustic shadowing. Because of the diverse ultrasound features of surgical, achieving a differential diagnosis can be challenging. Foreign body granulomas should be included in the differential diagnosis of postoperative pelvic masses, particularly in patients with prior use of haemostatic agents. Awareness of this entity and proper communication between sonographers and surgical team can help avoid misdiagnosis, prevent unnecessary investigations, and ensure appropriate management.

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REFERENCES

1. Al-Sindi K, Emran M, El-Wahed MAA, Al-Badawi IA. Foreign body granuloma mimicking ovarian malignancy: a case report. J Med Case Rep. 2012;6:28.
2. Nezhat C, Hajhosseini B, King LP. Pseudotumor caused by oxidized regenerated cellulose (Surgicel) masquerading as ovarian cancer recurrence. Obstet Gynecol. 2012;119(2):438-41.
3. Kothari A, Goel G, Sinha R, Hariharan C. Suture granuloma mimicking recurrence after laparoscopic hysterectomy: a diagnostic dilemma. J Minim Access Surg. 2016;12(1):84-6.
4. Chavan RN, Suryawanshi KH, Gupta N, Bansal S. Surgicel granuloma simulating pelvic malignancy: report of two cases. J Obstet Gynaecol India. 2015;65(2):129-32.

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