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SHORT COMMENTARY

Common Medical Devices with Uncommon Complications

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Abstract
Medical devices and materials commonly used in management of common gynecological conditions or during surgical procedures may present with acute or chronic complications due to incorrect application, improper use and lack of follow up. We present two interesting cases highlighting this problem. A strong index of suspicion is very crucial in early diagnosis and successful management.

Keywords Vaginal pessary · Rectovaginal fistula · Gossypiboma · Medical devices

Introduction

Retained foreign body refers to foreign material left in patient's body accidently, often as a result of surgical complications or medical error. Common foreign bodies seen in the genital tract are forgotten IUCDs, pessary and surgical swabs. With increasing use of hemostatic materials, clips, mesh and sutures, risk of post-surgery foreign material in body and its associated complications have also increased. Patients may present with complaints of acute or chronic pelvic pain, abnormal uterine bleeding, infertility, vaginal discharge and urinary complaints [1]. We shall discuss two cases of commonly used medical devices/materials that can have an adverse impact if not used or managed properly.

Case 1

A 70-year-old, P8L8 presented to outpatient department (OPD) with complaints of discharge per vaginum for three months and fever for fifteen days. The discharge was foul smelling and blood stained. Patient gave history of vaginal ring pessary insertion one year back for third-degree uterovaginal prolapse but had never gone back for follow-up. There was no history of passage of stools pervaginum.

On examination, the patient was frail and had mild pallor. Abdominal examination was normal. On per speculum examination, a plastic ring pessary was seen in antero-posterior position, posteriorly buried under the vaginal mucosa (Fig. 1). On digital rectal examination, there was a 1 cm rectovaginal fistula, through which the pessary was felt. She was posted for examination under anesthesia. Ring pessary was cut and removed carefully from its tract underneath vaginal mucosa by rotating in anti-clockwise direction (Fig. 2a, b). After removal of pessary, the cervix was seen high up flushed with vagina. Vaginal end of rectovaginal fistula was seen one cm from introitus with healthy margins (Fig. 2c).

Patient was managed conservatively with antibiotics, betadine vaginal douching twice daily, daily application of 1gm vaginal estradiol cream and stool softeners. She was kept nil orally for 4 days and then gradually allowed liquid diet followed by semisolids. She was discharged from hospital and advised local vaginal estradiol application till

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Fig. 1 Plastic ring pessary seen in antero-posterior position, posteriorly buried under the vaginal mucosa

six weeks. She was planned for repair of fistula after two months. However, when the patient came for follow-up after four weeks, the fistula had healed well and there was no passage of stools per vaginum (Fig. 3). There was no recurrence of fistula on follow-up.

Case 2

23 years P1L1, with history of cesarean section done 8 months back, presented to gynecological outpatient department with complaints of postmenstrual spotting since 6 months. There was no other significant finding on general and local examination except for mixed discharge on speculum examination. Transabdominal scan showed a sheet like structure of 3×1.4 cm embedded in posterior part of myometrium projecting in cavity and touching the scar. The transvaginal scan showed a hyperechoic shadow in anterior myometrium in region of fundus, no free fluid in pelvis. An elongated tubular structure in lower part of uterine cavity was seen on MRI that was suggestive of a foreign body (Fig. 4).

On hysteroscopy, a double-folded mesh-like white structure was seen lying in lower uterine segment in the area of cesarean scar just above internal os (Fig. 5a). Rest of the cavity was normal. On laparoscopy, there was a bulge over lower uterine segment, uterovesical fold of peritoneum was thickened and bladder was densely adherent at the scar site; hence, decision was taken for laparotomy. On separating the bladder from scar, the scar was open, revealing a mesh-like structure which turned out to be a silicon sheet, used to prevent postoperative adhesions (Fig. 5b,c). The sheet was removed, and scar was sutured with Vicryl 1–0. The postoperative period was uneventful and on follow-up her menstrual cycle was normal.

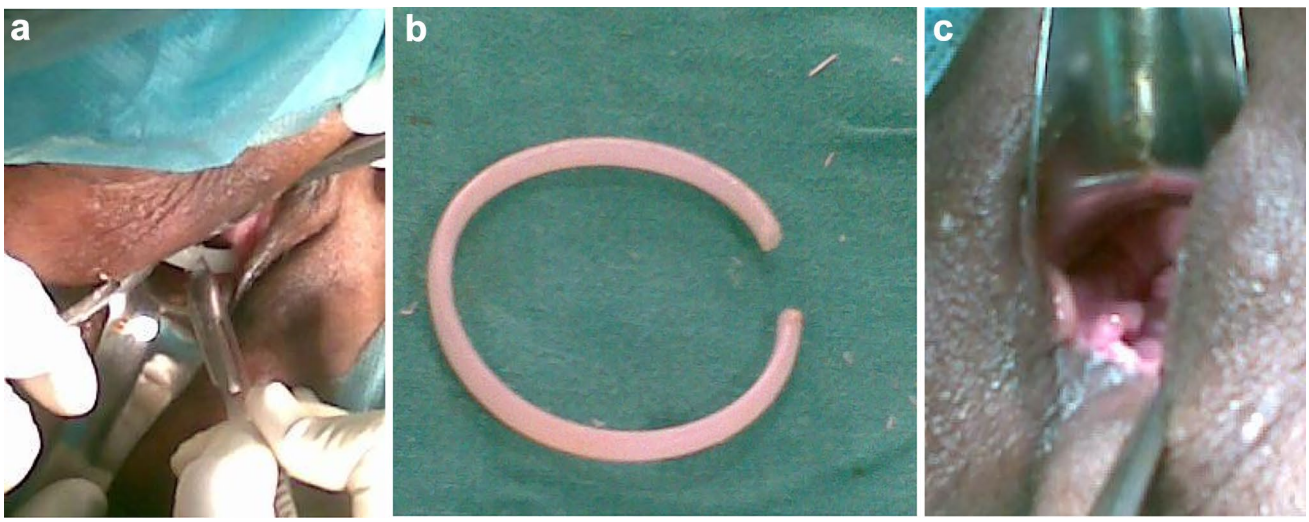

Fig. 2 Intraoperative procedure and findings for pessary removal. **a** Ring pessary cut and removed. **b** Cut ring pessary. **c** Rectovaginal fistula was seen one cm from introitus with healthy margins

Fig. 3 Healed Rectovaginal fistula after application of estrogen cream

Fig. 4 MRI image showing an elongated tubular structure in lower part of uterine cavity

Discussion

Vaginal pessaries still continue to have a place in the management of uterine prolapse, particularly in those who are unfit for surgery and those who refuse or are waiting for surgery. However, elderly patients are at a higher risk of retained pessary resulting in ulceration, infection and bleeding [1]. More severe complications include formation of rectovaginal (RVF) and vesico-vaginal fistula as a result of pressure and avascular necrosis [2]. Surgical repair with or without diversion colostomy is the treatment of choice for rectovaginal fistula, and estrogen creams may be used to augment healing after surgery [3]. Conservative treatment using vaginal estrogen for pessary-induced RVF has only been described in one case by Cichowski S and Rogers RG, and the present case is the second one reported in the literature [4]. Vaginal estrogens help in healing by improving vascularity, cause re-epithelialization and improve vaginal maturation index.

Non-absorbable suture material, essure, gauges pieces, etc., have been found in uterine cavity, and these incite an inflammatory reaction resulting in formation of a pseudotumor, commonly referred to as textiloma or gossypiboma [5]. Patient may present with acute or chronic symptoms, pain in lower abdomen and abnormal uterine bleeding which may be in the form of heavy menstural bleeding, post-menstural or inter-menstural bleed as seen in the second patient. In the present case, the silicon sheet was inadvertently put instead of hemostat absorbent, during cesarean section as neither the assisting nurse nor the operating surgeon noticed the material carefully. A plethora of such similar looking materials are usually available in operating room these days, so safety check protocols are of immense importance to minimize risk in busy obstetric units. A strong index of suspicion is very crucial in early diagnosis and successful management. MRI is useful, as it helps in better delineation of the morphology of the lesion, and hysteroscopy/laparoscopy should be done when in doubt.

Conclusion

To conclude, medical devices which are used for treatment and/or prevent a complication may cause adverse consequences if used or managed inappropriately. Forgotten pessaries may be associated with grave consequences; hence, proper counselling and follow-up is the key to successful outcome. Local estrogen creams enhance healing and may be used in treatment of fistulas as a primary or adjunctive treatment. With the advent of newer gels, meshes, hemostats and anti-adhesive material, one must be vigilant and keep themselves updated as regard to their indications and correct application.

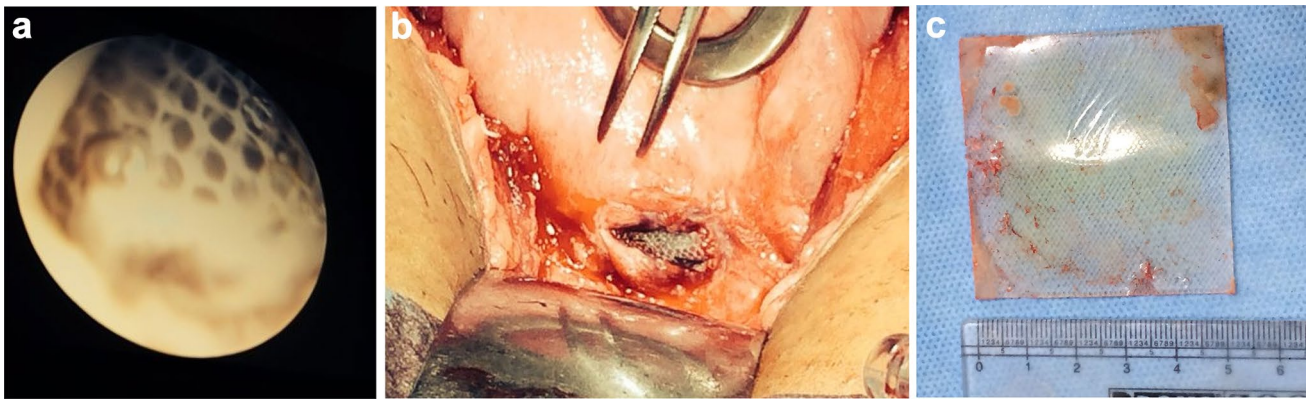

Fig. 5 Intraoperative findings in management of textiloma. **a** Double-folded mesh-like white structure in lower uterine segment on hysteroscopy. **b** Mesh-like structure seen in the lower uterine segment after separating the bladder. **c** Removed silicon sheet

Declarations

Conflict of interest Authors declare that they have no conflict of interest.

Ethical approval All procedures performed in this case report involving human participants were in accordance with the ethical standards of the institutional and or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent Informed consent was obtained from the patients included in the case report.

References

1. Anderson J, Paterek E. Vaginal foreign body evaluation and treatment. 2021 May 19. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021.
2. Abdulaziz M, Stothers L, Lazare D. Macnab A (2015) An integrative review and severity classification of complications related to pessary use in the treatment of female pelvic organ prolapse. Can Urol Assoc J. 2015;9(5–6):E400–6.
3. Gordon G, Dolnicek T, Malviya V. A problematic peril of pessaries: the rare case of rectovaginal fistulas resulting from pessary use. JCGO. 2015;4(1):193–6.
4. Cichowski S. Rogers RG (2013) Nonsurgical management of a rectovaginal fistula caused by a Gellhorn pessary. Obstet Gynecol. 2013;122(2 Pt 2):446–9.
5. Sonarkar R, Wilkinson R, Nazar Z, Gajendra G, Sonawane S. Textiloma presenting as a lump in abdomen: a case report. Int J Surg Case Rep. October;2020(77):206–9.

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