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Post - hernioplasty Sepsis Presenting as Genital Ulcer Disease - a case report

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Abstract

Inguinal hernia surgery and repair is one of the most commonly performed surgeries worldwide. The use of mesh has been an advance in hernia surgery. Complications such as infection, contraction, rejection of the mesh are known to occur following the repair. We report a case of a patient who underwent inguinal hernia surgery with mesh repair, thereafter she developed a sinus opening into the external genitalia in the late post operative period and presented to us as a case of genital ulcer.

Introduction

The use of meshes in hernia repair has become common. However, it may be associated with infectious and non- infectious complications. The reported incidence of mesh related infections, have been up to 8%. Rate is influenced by underlying co-morbidity and immuno-suppression [1]. We report one such patient, who developed secondary infection of the mesh used in the hernioplasty and presented to us with a genital ulcer.

Case History

A 48 year old, married, multiparous female, on treatment for diabetes and hypertension since the past 10 years had left inguinal hernia since the past 20 years and right inguinal hernia since 5 yrs. She had an episode of strangulation of the right hernia sac and had to undergo emergency bilateral hernioplasty with mesh repair. After 2 months of uneventful post operative period, she developed lower pelvic pain. Five months later she noticed a swelling over the right labia majora and the adjacent area of the mons pubis which progressively increased in size and 2 months later started discharging mucopurulent discharge via an opening on the right labia

majus.

She also had low grade fever on and off since 3 months. There was no history of chronic cough, weight loss, noticing any lump in the abdomen, or exposure to Kochs patient. There were no history of extramarital sexual exposure, no vaginal discharge or ulcer in the past and no abortion or use of contraceptive devices.

Examination revealed a conscious, oriented female with stable vitals. There was no pallor, icterus, cyanosis or clubbing. Locally, in the genital region, there was a boggy swelling extending from the right labia majus to the corresponding area of the mons pubis. The swelling was erythematous, warm and tender, surface of which showed an ulcer covered with thick, yellowish, non foul smelling mucopurulent discharge (Fig. 1). Clearing of the discharge revealed an underlying oval ulcer measuring approximately 0.6 x 0.4cm. The margin was well defined; the edge was sloping at places while at other places it was edematous. The floor was covered with slough. The surrounding skin was erythematous and edematous. On palpation the ulcer was tender but did not bleed on touch.



Fig 1: Image of the ulcer on the right labia majora.

Bilateral inguinal lymph nodes; the medial group of horizontal chain as well as the vertical chain were enlarged, the largest being 3x3 cm in size. All the nodes were discrete, firm, mobile and non tender. Abdominal examination showed bilateral linear scars present in the inguinal region, suggestive of previous hernioplasty; however on palpation there was no tenderness, guarding, rigidity or any organomegaly noted.

Central nervous system, respiratory system and cardiovascular system appeared to be unaffected. The rest of the skin and oral mucosa appeared normal.

Her baseline investigations showed a raised total count which was 13, 600 cells/cm³ with neutrophilia, N80 L15 E5. Her Fasting blood sugar (FBSL) was 194 mg/dl and Post prandial blood sugar (PPBSL) was 203 mg/dl. Pus for gram stain revealed gram positive cocci in

clusters. Pus culture and sensitivity showed growth of staphylococcus aureus, sensitive to linezolid. Smear for Acid Fast Bacilli detection, as well as Potassium hydroxide (KOH) for fungal demonstration proved negative. Tests for syphilis such as VDRL test and Treponema Pallidum Hemagglutination (TPHA) test were both negative, as also the tuberculin test for tuberculosis and ELISA test for HIV infection were negative. Based on the initial presentation, a tentative diagnosis of genital ulcer disease (GUD) was made and she was treated for the same, based on syndromic approach as per NACO guidelines [2]. However, the ulcer remained unchanged. Thereafter, based on pus culture and sensitivity, which had arrived by then, she was started on oral linezolid, which she received for 2 weeks. Unfortunately, the ulcer did not respond. The non healing behaviour of the ulcer as well as the periodic discharge from it led us to suspect a presence of sinus in her. Hence, abdominal Ultrasonography (USG) and a Sinogram were done. USG revealed a well defined hypodense collection in the anterior pelvic wall on the right side. The Sinogram showed the dye outlining the sinus tract, extending from the cutaneous opening and going up to the origin of the sinus. This origin was seen to be situated laterally at the level of the right superior pubic rami with collection of the dye in the adjacent anterior abdominal wall. There was no contrast leak into the peritoneal cavity. With the above findings, the presence of a sinus was confirmed. Opinion taken from the surgeon stated that the sinus probably was secondary to the infected mesh and the appropriate approach was to re-explore and remove the infected mesh. However the patient was lost for follow up.



Fig 2: Sinogram showing collection of the dye at the level of Right pubic ramus.

Discussion

We present a case of a female patient who presented to us with a genital ulcer. Failure to respond to all the treatments given led us to suspect a sinus in her for which she was evaluated. Sinogram confirmed the presence of a sinus. This was in fact the site of the infected mesh used in the hernioplasty procedure. However, tuberculosis as a cause of chronic ulcer was ruled out, there being no significant positive history as also chest X-ray, PPD and AFB staining were

negative.

The patient's uncontrolled diabetic profile could have been a confounding factor. Thus, the infection progressed, finally following the path of least resistance, and presented as a genital ulcer, which actually was the opening for a chronic draining sinus.

The primary benefit of using a mesh is to reduce recurrence. Mesh materials available range from absorbable to non absorbable and from inert to biologic [3]. Serious complications have been observed in a small percentage of patients, these include wound infection with or without chronic draining sinuses, erosion into adjacent structures including the intestine, extrusion of the material, entero-cutaneous fistula, small bowel obstruction and recurrent herniation.[4]

Prophylactic antibiotic usage is important. In spite of that, Houck et al [5] and White et al [6] have reported an infection rate of 15% and 14% respectively. Molloy et al reported a sinus formation rate of 12% [7]. Propylene mesh was associated with significantly greater chronic inflammatory reaction and fibrosis [8]. In our patient, so also, a polypropylene mesh was used.

Sores mistaken to be sexually transmitted, infective in origin have been reported by V.L.Rege and P.Shukla, 1993(9). Similarly, VS Hanchanale et al., 2006 reported a patient presenting with gluteal sinus, which was later diagnosed to be due to renal tuberculosis [10]. In both the above cases, a Sinogram was used to confirm the diagnosis of the presence of a sinus tract.

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