CASE REPORT

Vesico-uterine fistula associated with secondary infertility: A case of successful repair

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Abstract
Genitourinary fistulas usually have devastating consequences on a woman's reproductive health. vesicouterine fistulae though uncommon variant of genitourinary fistula, are usually due to iatrogenic etiologies. The case reported was diagnosed after second caesarean section when she was being evaluated for secondary infertility.

Keywords: Youseff 'syndrome, Amenorrhea, Caesarean Section, Fistula,

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CASE REPORT

Fistule vesico-uterine associée à une infertilité condiaire se - un cas de réparation réussie

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Résumé
Les fistules génito-urinaires ont généralement des conséquences dévastatrices sur la santé génésique d'une femme. Les fistules vésicaux-utérines, bien que variante rare des fistules génito-urinaires, sont généralement dues à des étiologies iatrogènes. Le cas signalé a été diagnostiqué après une deuxième césarienne alors qu'elle était évaluée pour une infertilité secondaire.

Mots clés: Syndrome de Youseff, aménorrhée, césarienne, fistule

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INTRODUCTION

Vesicouterine fistulae which are classified among genitourinary fistulae are not encountered very frequently. They occur when there is an abnormal communication between the bladder mucosa and the uterine endometrium it is usually due to iatrogenic causes. The commonest iatrogenic sequelae is following caesarean section. In this case, it is associated with amenorrhea, cyclical hematuria and absence of urinary incontinence (1). The case presented here was diagnosed following two caesarean sections when she presented to our gynaecological clinic on account of inability to conceive of two years duration.

CASE PRESENTATION

A 36 year old Para 2+0 (None alive) woman presented to our clinic on account of inability to conceive of two years duration despite adequate and unprotected coitus with her partner. She complained of amenorrhea and cyclical hematuria of the same duration. She has had two caesarean sections at about four years and two years prior to presentation which both resulted in singleton deliveries at each occasion and was complicated by early neonatal death in both instance. On examination, she was not pale, not jaundiced and had no pedal edema. Abdominal and pelvic examinations were essentially normal. A hysterosalpingogram and urethrogram were requested for. The urethrogram revealed a connection between the bladder and the uterus at the level of the internal os (Fig 1). She was planned for a repair via an Abdominal route, her hematologic and renal profile were done and was found to be satisfactory. The findings at surgery includes a fistulous tract at the site of the low transverse caesarean section scar just superior to the internal os, this fistula connects the bladder and the uterus together; mild to moderate adhesions involving the bladder, uterus and the anterior abdominal wall. The fistula was repaired through infraumbilical incision, the fistula tract localized on the anterior aspect of the cervicouterine junction at a level adjacent to the internal os. After incision of the bladder dome, the bladder was clam shelled. The fistulous tract was completely excised so as to encompass fistula openings on the bladder, and uterine wall. Bladder wall was closed in two layers following the repair of fistula there was no evidence of leakage following injection of dye via the urethral catheter. Fistula opening on the uterine wall was closed with polyglycolic acid sutures in one layer. Urethral catheter was left in place for ten days to allow for continous bladder drainage. After removal of urethral catheter patient was allowed home. On follow up clinic visit in a fortnight patients complaint of cyclic hematuria was noticed to have resolved, but she was still on follow up care because of her fertility concern.

DISCUSSION

Infertility is a major reproductive health issue in our society, this is especially due to the high premium placed on child bearing in this part of the world (2).The presentation varies from one patient to another. The case presentation was a combination of secondary infertility and vesicouterine fistula. The association of infertility with the cyclic hematuria, amenorrhea without urinary incontinence is rare. This typifies the already described classical Youssef triad and was originally described by Youssef in 1957 (1,3).

This rare form of urogenital fistula usually occurs following caesarean section as in the case presented above, typically the fistulous tract is just above or at the level of the internal os near the cervicouterine junction (4). Typically, in vesicouterine fistulae, intrauterine pressure is higher than intravesical pressure,

Commonly used diagnostic test includes intravenous urography (IVU), hysterosalpingography, sonohysterography, cystography, methylene blue test, transvaginal ultrasound, pelvic MRI, and cystoscopy. In the case of the patient presented a urethrocystogram was used to diagnose vesicouterine fistula Fig 1.

Management of this condition can be conservative or surgical. A conservative approach may be indicated if the fistula is diagnosed just following delivery, in which case an indwelling urethral catheter is put in place for four to eight weeks (5). The case presented above was not diagnosed early enough and had exceeded the window necessary for optimal outcome with conservative management. Surgical management can be via robotic, minimally invasive or open techniques (6,7)

In case presented above we opted for an open technique in view of the facilities at our disposal and also on the fact that patient was classified as fit for open surgical technique in view of an anticipation of post operative adhesions following the two previous caesarean sections which could be a contraindication to a minimally invasive approach.

In view of the fertility concern of our patient, she was counseled on the need for a follow-up care to assist her with conception and

was advised that subsequent deliveries should be hospital supervised and must be via caesarean section, this was because she had two previous caesarean section which on its own is an indication for elective caesarean section in her and also to prevent the possibility of a recurrence of the fistula following the successful repair.

CONCLUSION

There is a need to have a high index of suspicion of vesico-uterine fistula in patients presenting with secondary infertility especially following one or more caesarean sections. Often times there is a likelihood of a differential diagnosis of endometriosis as this was also entertained in the index case but was excluded following investigation results. Gynaecologist are advised to take a detailed history, physical examination and appropriate investigations in order to make the right diagnosis.

Patient Consent: Prior to submitting this case report for consideration for publication, patient's permission was sought and issue concerning confidentiality was discussed before her informed consent was obtained. Clearance was also sought from the hospital ethics committee.

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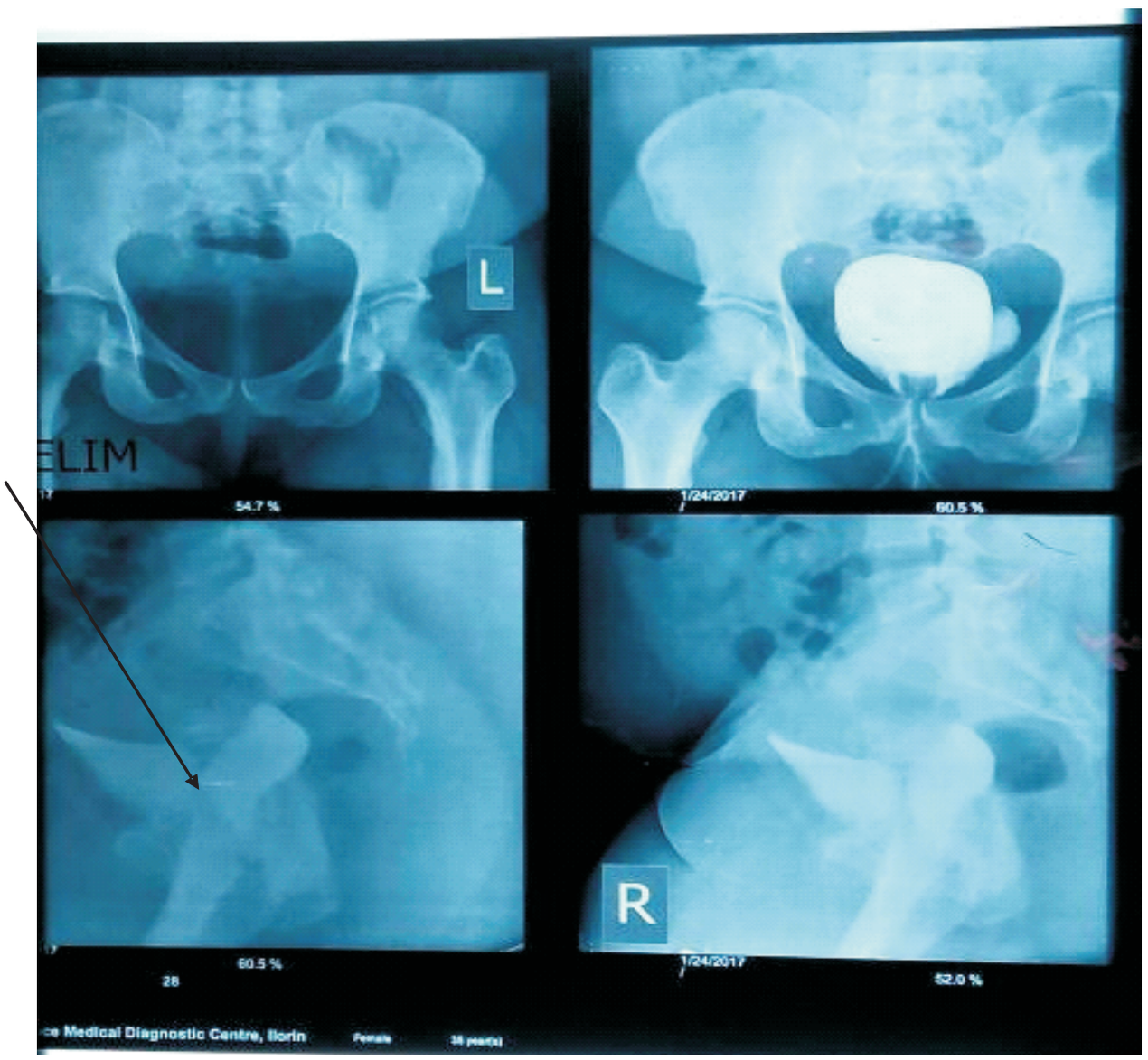

Figure 1: (Arrow indicates the area of fistula)