An Unusual Case of Vaginal Discharge

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Abstract
We present a case of unusual vaginal discharge in a young woman following ultrasound guided egg collection for IVF (in vitro fertilisation) who attended A&E with low abdominal pain and clear discharge. After CT intravenous urogram (IVU) a right-sided ureteric injury was identified and treated with insertion of a JJ stent. She recovered well with no immediate or long-term complications. She had a repeat retrograde study of her ureters that demonstrated no leak.

INTRODUCTION

The process of IVF involves the harvesting of eggs and then artificially fertilising them before re-implantation into the uterus. The commonest complications associated with egg retrieval include: bleeding, infection and damage to surrounding organs [1] and the incidence of severe complications such as intraperitoneal bleeding or ovarian abscess formation is low [2]. Other complications are associated with anaesthesia and the use of human chorionic gonadotrophin (hCG) to stimulate ovulation leading to ovarian hyperstimulation syndrome.

CASE PRESENTATION

A 26 year old lady with primary infertility from polycystic ovary syndrome (PCOS) presented to the Emergency Department with severe lower abdominal pain, new clear vaginal discharge and difficulty micturating after having had an ultrasound (US) guided egg collection procedure under general anaesthetic for in IVF two days previously. The procedure was made difficult by very mobile ovaries requiring repeated needle puncturing of the ovaries. She has no other past medical history.

On examination, her abdomen was soft with mild tenderness suprapubically. Her observations were stable and vaginal examination was unremarkable.

An abdominal ultrasound revealed enlarged ovaries consistent with previous ovarian stimulation, a normal uterus and a distended bladder without any evidence of free fluid or collection in the pelvis. A CT IVU demonstrated free extravasated contrast pooling in the area of posterior fornix of vagina, tracking through the vaginal wall on the right originating from the right distal ureter (Figure 1).

The patient underwent a right JJ stent insertion of the right ureter. Retrograde studies demonstrated extravasation from the right vesicoureteric junction. She was discharged with a catheter. She returned for the removal of her stent five weeks later. Retrograde studies confirmed no further contrast extravasation in the right ureter after stent removal. She then proceeded with her IVF treatment.

DISCUSSION

Complications following transvaginal egg retrieval are rare and most commonly include bleeding or infection. More serious
complications, which are rare, include intraperitoneal bleeding and ovarian abscess formation. Other complications include damage to surrounding intra-abdominal structures such as major vasculature or the urinary and gastro-intestinal tract [1,3].

There are very few reports of ureteric injury following transvaginal egg retrieval. Other case reports have demonstrated fistula formation [4], ureteric obstruction [5] and uroretroperitoneum [4].

The mechanism of injury appears to be the result of any of a series of possibilities; hyper-mobile ovaries, abnormal anatomy (possibly secondary to previous infection of pelvic inflammation), the natural location of the ureters and the difficulty in identifying the ureters using ultrasound.

Ureteric injury during IVF treatment is potentially under reported and most patients are asymptomatic. We believe in the case reported, the patient was symptomatic because of urinary leak when the bladder is distended with urine and symptoms stopped following catheterisation to drain the bladder and JJ stent insertion which may have sealed the defect by tamponade. This case report demonstrates the diagnosis of ureteric injury in a patient presenting with abdominal pain and vaginal discharge should make up part of the differential diagnosis as if treated in a time appropriate manner can be managed successfully.

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CONFLICT OF INTEREST

None of the contributing authors have any conflict of interest, including specific financial interests or relationships and affiliations relevant to the subject matter or materials discussed in the manuscript.

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