



BEYOND THE LIVER AND LUNGS: EPIDURAL ANAESTHESIA IN PELVIC HYDATID CYST SURGERY

Anaesthesiology

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ABSTRACT

Background: Hydatid disease caused by *Echinococcus granulosus* is a parasitic infection most commonly affecting the liver and lungs. Pelvic hydatid cysts are extremely rare and present unique perioperative challenges. **Case report:** We report the anaesthetic management of a patient undergoing surgical removal of multiple complex ovarian cysts under epidural anaesthesia when incidentally large three hydatid cysts were noted. **Conclusion:** Anaesthetic management of patients with incidentally found multiple hydatid cysts is challenging, especially when patient is under regional anaesthesia. It involves prompt management of anaphylaxis and control of hemodynamic disturbances during cyst evacuation

KEYWORDS

Pelvic Hydatid cyst, Epidural Anaesthesia, Anaphylaxis

INTRODUCTION

Hydatid disease is a zoonotic parasitic infection caused by the larval stage of *Echinococcus granulosus*. Although the liver and lungs are the most commonly affected organs, hydatid cysts may occasionally occur in unusual locations such as the pelvis. These rare presentations can pose diagnostic and therapeutic challenges. An anaesthesiologist plays a crucial role in ensuring haemodynamic stability and managing complications associated with cyst rupture, anaphylaxis and excessive blood loss during surgery. We report the anaesthetic management of a rare case of multiple hydatid cysts which were encountered on opening the abdomen for ovarian cystectomy.

CASE REPORT

A 24-year old, unmarried, nulligravida female presented with complaints of pain in right iliac fossa on and off, since one month and was not associated with bowel and bladder complaints. She was conscious, oriented, afebrile with pulse rate of 82 beats/min and blood pressure of 120/80 mmHg. The hematological investigations were unremarkable except serum creatinine which was increased [1.53 mg %]. MRI showed multiple irregular cysts with internal septation in bilateral adnexal region and rectouterine pouch, compressing pelvic organs and causing bilateral moderate hydronephrosis suggestive of complex ovarian cysts. Urology reference was done and she was advised bilateral DJ stenting prior to ovarian cystectomy.

The patient was scheduled for ovarian cystectomy under spinal plus epidural anaesthesia. On the day of surgery, after obtaining written informed consent and confirming NBM status, the patient was taken inside the operation theatre and standard ASA monitoring [ECG, pulse oximetry and non invasive blood pressure] was instituted. Spinal anaesthesia was administered with 3ml of 0.5% Bupivacaine [heavy] and epidural catheter was placed under strict aseptic precautions. First bilateral DJ stenting was done followed by laparotomy for ovarian cystectomy. On opening the abdomen, three hydatid cysts were seen, one in the left pelvic region near the aorta and two in the right pelvic region. Surgical reference was given. Two wide bore iv cannula's were secured. Epidural test dose was given and epidural infusion 0.25% started. Injection Hydrocortisone 100mg was given with 100% oxygen via mask was given to prevent chances of any anaphylactic reaction. All three hydatid cysts were removed with meticulous precautions. There was blood loss of around 2 litres which was managed with prompt fluid resuscitation with Ringer's Lactate and 2 pints of PRBC was transfused. Haemostasis was achieved and then handover was given to gynaecologist. Patient remained hemodynamically stable throughout the operation and was shifted to ICU for postoperative monitoring and observation. Epidural catheter provided effective postoperative analgesia and was removed on the postoperative day 2. The patient remained stable and had an uneventful recovery.

DISCUSSION:

Pelvic hydatid cysts are very rare and their anaesthetic and surgical management may be associated with significant blood loss,

perioperative complications such as cyst rupture, sepsis and anaphylactic shock. In our case, it was an incidental finding. Prompt clinical diagnosis and management is the next crucial step. Regional anaesthesia using epidural anaesthesia provides effective analgesia and allows maintenance of stable haemodynamics during major abdominal surgeries. Continuous epidural analgesia in the postoperative period also improves patient comfort and facilitates early recovery.



CONCLUSION

Pelvic hydatid cysts have multiple perioperative concerns. Such patients should receive treatment in tertiary care centers with intensive care units and surgical expertise in handling such cases. Prophylactic drugs, close monitoring, and prompt treatment can help prevent adverse outcomes. Anaesthesiologists should be prepared for hemodynamic disturbances and eventuality of anaphylaxis.

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