

Hypoalbuminemia Linking Peritoneal Leakage following LUCS - A Case Report of Intraabdominal Collection with Sepsis

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Abstract

A 37 year old educated lady with a BMI of 34 and history of (H/O) 7 days prior caesarean section, presented in ER of Indira Gandhi Memorial Hospital (IGMH), Maldives. She was comparatively well until the 2nd post operative day (POD) but then developed dyspepsia and discomfort and its gradually increasing and 5th day of operation, abdomen becomes distended with pain. Initial scanning reveals intra-abdominal mild to moderate collection with no obvious hemorrhage or luminal perforation. As hemodynamic status was static, it was treated conservatively, but for pain compile with Fever, distension and frequent hypoglycaemia came in sight thus she shifted for better management in tertiary centre (IGMH&DH) on 7th POD. Immediate base line screening reveals tender, distended abdomen, Fever, mild resp distress, severe hypoalbuminaemia with features of sepsis and intraabdominal thick collection, minimal pleural and pericardial effusion. Exploratory laparotomy through Mid midline incision performed and reveals foul smelling thick collection in multiple location of peritoneal cavity. Drainage and cleansing had been done with wide drain tube. Patient shifted in critical care unit with Albumin, antibiotics and other logistic cares. On the 10th POD, the patient was discharged with stable health parameters of life.

Introduction

Plasma colloidal osmotic pressure is a critical determinant of osmotic equilibrium in extracellular (ECF) and intracellular fluid (ICF). Albumin is important colloid and hypoalbuminaemia causing fluid leakage and extravasation with reserve in free space of body. Peritoneal, pleural, pericardial cavities are the most common potential areas for accumulation. In peritoneum, Meconium superadded infec-

tion & resident pathognomic flora sometimes supervene and causing pus formation, sepsis of that free fluid.

Case Presentation

This 37-year-old woman, with an H/O of repeated attempts at pregnancy ending in two ectopic pregnancies and undergoing IVF, presented with a full-term pregnancy complicated by sudden rupture of membranes, necessitating an emergency caesarean section (C/S). Initial postoperative time was uneventful and on 3rd POD mild distension, there was discomfort in abdomen. She was treating conservatively upto 5th and after that she develops pain, distension and on 7th POD refer for tertiary care with keeping NPO , Gastric decompression state. Immediate investigations revealed severe hypoalbuminaemia (albumin 2.1) , features of sepsis (raised TLC, CRP, Pro calcitonin), frequent hypoglycaemia, low BP. A CT scan showed a moderate amount of thick fluid in the abdomen and mild pleural and pericardial effusions. Correction of albumin (100 ml inj Albumin OD), inj Meropenem, metronidazole started immediately & Urgent exploratory laparotomy reveals foul smelling collection of fluid (aprx. 500 ml) in pelvic and paracolic gutter. Drainage and thorough cleansing done and 22 fr drain kept in situ. Patient shifted to critical care unit and transfusion of Inj Albumin (total 5 days), Ionotrops, oxygen, and strict I/O chart and other supportive care, on 3rd POD shifted from ICU and sent to ward. On 10th day of laparotomy , patient discharged with good quality of life to her precious kid.

Discussion

Post operative intra-abdominal collection is not uncommon in surgical practice. Fever, distension, pain is the initial clue of any catastrophe following surgery. Primary/reactionary hemorrhage , anastomotic leakage is commonly found as reason in postoperative patient. Hypoalbuminaemia is also may be the reason in accumulation of fluid in 3rd space which becomes pathognomic with opportunistic infections by meconium and/or resident flora. During pregnancy, some mothers may suffer from malnourishment despite having a good BMI. In pregnancy, metabolic requirement is raised for mother and with good calorie and protein. Underlying Medical illness sometimes causing hypoalbuminaemia which should be scrutinized properly. A gestational good clinical evaluation with proper food and medical history, Psychological evaluation , watchful Antenatal checkup and early clinical prediction of postoperative hypoalbuminaemia induced 3rd space fluid leakage can minimize the complication of sepsis and , morbidity/mortality.

Conclusion

Advancing Medical technology, so much nutritious calorie containing food, social education, awareness and all other hi-tech facilities, sometimes we forget to memorize psychological care in gestational period is a sophisticated tools for balancing the health and well-being of both mother and the child - a good health and mind. Gestational emotional lability is associated with disproportionate calorie intake and is common in IVF mothers as had H/O prolonged mental stress for her precious upcoming child. Concomitant medical illness should be ruled out for hypoalbuminaemia before establishing malnourishment.

Ethical approval

As per international standard or university standard, patient consent has been collected and preserved by the authors.

Competing interests

Authors have declared that no competing interests exist.

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