



Ogilvie's syndrome with caecal perforation following caesarean section, complicated by pulmonary thromboembolism and H1N1 viral infection

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ABSTRACT:- A 26-year-old woman was referred to us on the fourth postoperative day following caesarean section, with complaints of abdominal distension, breathlessness, associated with cough and expectoration. Abdominal examination revealed gross distension and absent bowel sounds. Bilateral rhonchi and crepitations were heard on examination of the respiratory system. Investigations confirmed the diagnosis of colonic perforation, and acute pulmonary thromboembolism. A final diagnosis of Ogilvie's syndrome complicated by perforation with pulmonary thromboembolism was made. An emergency laparotomy was performed and caecal perforation was noted. Hence, segmental ileo-caecal resection with ileo-ascending colon anastomosis, and loop ileostomy was performed. She was started on anticoagulant therapy. Throat swab confirmed H1N1 influenza infection and hence she was started on Oseltamivir. The patient improved symptomatically and was discharged.

Keywords:- colonic perforation, Ogilvie's, H1N1, resection, thromboembolism

I. INTRODUCTION

Ogilvie's syndrome with perforation, post Caesarean section is a rare occurrence. Constipation, abdominal discomfort and abdominal distension must raise the suspicion of idiopathic colonic pseudo-obstruction. Prompt diagnosis of early presenting symptoms can prevent life threatening complications of perforation and peritonitis.

II. CASE REPORT

A 26-year-old lady underwent caesarean section for cephalo-pelvic disproportion. On the 4th post-operative day, she developed cough with expectoration, abdominal discomfort, sudden onset breathlessness, tachypnea and orthopnea. History of nausea was present. There was no history of passage of stools post-operatively. She was referred to our Hospital for further evaluation and management.

On examination, she was conscious, alert and well oriented. Mild pallor was present.

Pulse rate was 126 beats/minute, blood pressure 110/70 mm Hg, the respiratory rate 44/min and temperature 99.6 °F. The abdomen was distended. The lower segment caesarean section wound appeared healthy. Tenderness was present around the wound site, other areas were non tender. Bowel sounds were absent. Rectum was empty on per rectal examination. Respiratory system examination revealed bilateral rhonchi and crepitations in the bilateral infra axillary and infra scapular areas. No abnormality was detected on cardiovascular system examination.

Routine hematological investigations showed neutrophilia with left shift and low hemoglobin (10.4 g/dl). Acute onset of breathlessness was evaluated with electrocardiogram, which did not reveal any significant changes. Troponin and D-dimer levels were analyzed. D-dimer levels were found to be elevated. Chest X-ray showed patchy infiltrations. Echocardiogram showed features of acute pulmonary embolism which was confirmed by CT angiography. Patient presented with respiratory distress during the H1N1 endemic hence throat swab was obtained.

As patient presented in the postoperative period with abdominal distension and constipation, paralytic ileus was our first differential diagnosis. However the patient's general condition and hematological evaluation showed features of sepsis. Hence a contrast enhanced CT scan of abdomen was done, which revealed gross pneumo-peritoneum probably due to proximal colonic perforation (fig1).



Figure 1: CT scan showing gross pneumoperitoneum

Our patient had acute onset breathlessness. The possible causes in the immediate post-operative period could be atelectasis, acute coronary syndrome or acute pulmonary thromboembolism. H1N1 viral influenza was suspected due to a concurrent endemic around that time. Electrocardiogram was normal. Troponin T was within normal limits and CT angiogram confirmed acute pulmonary thromboembolism. Thrombotic work up was normal.

Patient was taken up for emergency laparotomy in view of gross pneumoperitoneum and signs of sepsis. Intra operatively, a caecal perforation of 0.5 cm diameter was seen in the anterior aspect (fig 2), with intraperitoneal fecal contamination. Peritoneal lavage was done, and segmental ileo-caecal resection with end to side ileo-ascending colon anastomosis with loop ileostomy was performed. In view of acute pulmonary thromboembolism patient was started on low molecular weight heparin six hours after surgery.



Figure 2: operative specimen showing perforation in caecum

Throat swab culture was positive for H1N1 influenza virus. Patient was started on Oseltamivir. Warfarin was started on the 3rd post-operative day and INR was optimized. Histopathological examination revealed caecal perforation with peritonitis and no other pathological entity. The patient improved symptomatically and was discharged on tenth postoperative day. She was advised to return after 2 months for the ileostomy closure. She underwent ileostomy closure after 2 months. The post-operative period was uneventful. Patient is under follow up for anticoagulation monitoring.

Patient is doing well at 3 months follow up. She is on oral anticoagulants for the treatment of pulmonary thromboembolism.

III. DISCUSSION

Ogilvie's syndrome refers to acute colonic pseudo-obstruction [1]. The patient presents with a clinical picture suggestive of colonic obstruction, in the absence of a distal mechanical obstruction. Ogilvie proposed the neurogenic theory of imbalance between the sympathetic and parasympathetic innervation of the colon as the cause for acute colonic pseudo-obstruction [2]. However, studies suggest intermittent neuropraxia of the sacral nerves, which can be damaged during surgery, as the underlying pathology [3]. The most common site of dilatation is the caecum, followed by the ascending colon [4]. This is a life threatening condition, as the incidence of mortality with early intervention is 15% and rapidly increases to 36-50% when associated with ischemia and perforation. The patient presents with a clinical picture suggestive of colonic obstruction, in the absence of a distal mechanical obstruction. The most common site of dilatation is the caecum, followed by the ascending colon [3]. Hence, emphasis should be placed on early suspicion based on symptoms, clinical examination and X-Ray or CT of the abdomen. If the caecal dilation is around 9 centimeters, timely decompression by colonoscopy or caecostomy can be performed [1]. If the dilation is beyond 12 centimeters or associated with ischemic damage and/or perforation, emergency surgical management is of prime importance. The general condition of the patient, and the intra-operative findings determine the surgical procedure of choice.

In our case, the patient presented with perforation and pneumoperitoneum, so emergency laparotomy was indicated. Concurrent acute pulmonary thromboembolism complicated the management and increased the risk of morbidity and mortality. In the post-operative period, she was also diagnosed to have H1N1 influenza, making this a unique constellation of symptoms in caecal perforation following Caesarean section.

IV. LEARNING POINTS

- Factors contributing to the development of post-operative paralytic ileus include-a side effect of the anaesthesia used during caesarean section and declining oestrogen levels post caesarean section, causing decreased parasympathetic tone.
- It is difficult to diagnose this condition solely by clinical examination, due to incomplete uterine involution, lax abdominal muscles and caesarean scar tenderness.
- Prophylactic laxatives from the post- operatively can prevent Ogilvie's syndrome. Early colonic decompression can prevent perforation and faecal peritonitis in Ogilvie's syndrome.

REFERENCES

- [1]. Latunde-Dada A, Alleemudder D, Webster D. Ogilvie's syndrome following caesarean section. Case Reports. 2013; 2013(jun19 1):bcr2013010013-bcr2013010013.
- [2]. Nanni C, Garbini A, Luchetti P, et al. Ogilvie's syndrome (acute colonic pseudo-obstruction): Review of the literature (October 1948 to March 1980) and report of four additional cases. Diseases of the Colon & Rectum. 1982; 25(2):157-166.
- [3]. VanekVW, Al-Salti M. Acute pseudo-obstruction of the colon (Ogilvie's syndrome). An analysis of 400 cases. Dis Colon Rectum 1986; 29:203-10.
- [4]. Strecker JR, Jaluvka V: Spontaneous caecum perforation following caesarean section. Geburtshilfe Frauenheilkd 1988, 48(7):489-493.