

Rare Entity of Emphysematous Cystitis Causing Intestinal Obstruction

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Abstract: Emphysematous cystitis caused by gas fermenting bacterial and fungal pathogens is not seen so commonly [1] and due to it intestinal obstruction is rare. Most common cause of emphysematous cystitis is Escherichia coli bacteria. We reported a case of 67 year old female presented in emergency with abdominal discomfort and not passing flatus and motion since 7 days after bipolar prosthesis replacement surgery. On further investigations and basis of surgery, we found cystitis and intraperitoneal adhesions, causing obstruction.

Keywords: Intestinal obstruction, emphysematous cystitis

INTRODUCTION

In emphysematous cystitis, gas accumulation inside the bladder wall is carbon dioxide produced by the fermentation of sugar and protein by the anaerobe pathogen mostly Agrobacteria aerogenes, Staphylococcus aureus, Klebsiella pneumoniae, Clostridium perfringens, Proteus mirabilis, Nocardia species, and Candida albicans generally noticed in immune compromised patients (upto 60% diabetic patients). Adhesions were most common cause of the intestinal obstruction all over worldwide [2].

CASE REPORT

A 67 year old female patient presented in emergency with complains of not passing flatus, motion with pain and distension of abdomen after surgery done 7 days ago (Hemireplacement Arthroplasty with Bipolar prosthesis) due to hip joint dislocation and progression of infection. All relevant investigations done with CECT abdomen in which multiple dilated small bowel loops were present with urinary bladder shows mildly thickened wall with multiple air foci in lumen s/o emphysematous cystitis which was confirmed by cystoscopy also during surgery. E. Coli was positive in urine culture. We planned for exploratory laparotomy to relieve the patient from obstruction, perioperative we found that approx whole the small gut dilated with omentum reach in the pelvis, after adhesiolysis we found that 2 feet proximal to the ilio-colic junction, loop of small gut adhere to the urinary bladder, forming stricture at the same place and distal to this stricture small intestine with large intestine collapse. After completing surgery, intraoperative cystoscopy done showing changes of cystitis. After finishing surgery, the patient was shifted in ICU, remains on invasive ventilator for a day and shift to ward. After 4 days the patient got respiratory infection, shifted again in ICU and remains there for 2 weeks. After complete recovery

of patient from respiratory infection discharged finally with stable vitals after 45 days long stay in hospital.



DISCUSSION

Emphysematous cystitis is a urinary tract infection that is associated with gas formation and is commonly caused by *E. coli* and *Klebsiella pneumoniae* [3]. X-ray KUB and USG are primarily done to

diagnose disease, whereas CT scan is better modality for suspicious lesion with more sensitivity and specificity, urine culture specifies the pathogen responsible. To treat patient i.v/oral antibiotics, urinary drainage and good control of blood sugar level should be done.

CONCLUSION

Emphysematous cystitis routinely not diagnosed so easily, for prevention of this disease, awareness about the UTI, early diagnosis, cure of the disease by the use of proper oral/ i.v. antibiotics with keep diabetic status normal is necessary.

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