Gastric Outlet Obstruction: A Case Report

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Abstract

Introduction: Gastric outlet obstruction is an obstruction in the pylorus of stomach it is also known as a pyloric obstruction. It is a common condition but sometimes accurate cause could not be found in these cases it can be diagnosed on the basis of signs and symptoms and on diagnostic evaluation i.e endoscopic examination, barium meal, ultrasonogaphy, computed tomography and chest x-ray.

Case Presentation: Here we are mentioninga 50- year'sold male visited our hospital with the complaints of severe abdominal pain, nausea and vomiting since 2 days, weakness since 5 months, has passed stool 2 days ago, weight loss for 2 months. All routine laboratory tests were done in this case and all the results were within normal range except decreased hemoglobin level, increase in white blood cells also increased creatinine level and decreased albumin level. In Abdominal ultrasonography it was mentioned that severely edematous mucosa with erosive patches and places, Pyloric canal deformed scope could not be negotiated across the pylorus. Barium meal study depicted dilated stomach where greater curvature is below the level of iliac crest. Finally a client case was diagnosed as a gastric outlet obstruction. Primarily as per priority Blood transfusion and all conservative treatment was started by surgical team but client was not relieved of obstruction by the medical management. Diagnostic exploratory laparotomy with repair of duodenal perforation with gastrojejunostomy under general anesthesia was done. Vital signs and cardiac monitoring was done. Maintained intravenous fluid and colour of drainage was observed, propped up position and antibiotic, analgesic, anti emetic given and ryle's tube aspiration was done 4 hourly also abdominal girth was also measured 4 hourly. A positive response to treatment was observed by patient. Patient was discharged with full recovery without any postoperative complication.

Conclusion: In this study, we mainly focus on expert surgical management and quality nursing care due to which the patient was discharged without any postoperative complications and satisfaction with full recovery.

Keywords: *Edematous mucosa, Gastric outlet obstruction, Pylorus, Stomach.*

Introduction

Gastric outlet obstruction is also known as a pyloric obstruction. It is a common condition which that requires a good intervention as early as possible. Gastric outlet obstruction is an obstruction of the channel of the pylorus and duodenum i.e part of small intestine through which the stomach empties. The cause of the obstruction may be benign or malignant disease.

The incidence of gastric outlet obstruction is exact unknown. But after detection proton pump inhibitors and H_2 blockers, the major cause of gastric outlet obstruction was peptic ulcer disease

The Helicobacter pylori and developing an effective treatment for the same has resulted in fever cases of peptic ulcer disease presenting with gastric outlet obstruction (<5%); in the modern era, the major cause is known to be malignancy, especially in the developed world. 80% of population which is highly affected with Helicobacter.

Pyloribacteria and the prevalence of peptic ulcer disease and gastric carcinoma near about 8.0/100,000 and 3.0/100,000, respectively. Many books and various articles suggest that the benign causes continue to be the major cause of gastric outlet obstruction in developing country[2].

Mostly benign causes of gastric outlet obstruction are peptic ulcers diseases i.e age factor, gastric polyps means masses of cells that form on the lining of the stomach, pyloric stenosis, ingestion of caustics, gallstone obstruction, bezoars, congenital duodenal webs, ulcers within the pyloric channel and first portion of the duodenum usually responsible for outlet obstruction[1].

The commonest cause of gastric outlet obstruction is pyloric stenosis i.e narrowing of the opening from stomach to the first part of the duodenum which is the part of small intestine. It is secondary to peptic ulcer disease or gastric carcinoma[1].

Transitional cell carcinoma is one of the main and common malignancy of the urinary tract of urinary system and is the second most common reason for death in genitourinary tumors. Near about 90% of all bladder cancers is related to transitional cell carcinoma. After it will spread towards lungs, liver and bone. In late stage metastases are seen towards brain and it is common[3,4].

In our client's case it was found that a novel presentation of gastric outlet obstruction because of

Severely edematous mucosa with erosive patches and places, pyloric canal deformed scope could not be negotiated across the pylorus. Barium meal study depicted dilated stomach where greater curvature is below the level of iliac crest.

Case History: A surgical case was taken by Acharya Vinoba Bhave Rural Hospital, DMIMS, Sawangi, Wardha, Maharashtra. After operation, this complicated case was taken care nicely by the hospital because of expert surgical team management and quality nursing care.

Patient Information: Mr. XY 50years old male was admitted in hospital with the complaints of severe abdominal pain just like a last stage, nausea vomiting since 2 days, weakness since 5 months, passed stool before 2 days, passed flatulence in morning, weight loss for 2 months. Along with all these complaints patients was admitted in hospital in emergency situation. He received treatment from others hospitals also but he was unsatisfied. Otherwise no any history of hypertension and diabetes mellitus and other communicable disease.

Patient belongs to low socioeconomic status; he likes to take vegetarian and non vegetarian diet. He maintained good interpersonal relationship with family members and relatives also.

Physical Examination: Patient's Physical examination was done and on examination he looked undernourished and his Body mass index was 15.22. Temperature 38^0F, Pulse rate was 82/min, Respiratory rate was 20/min and systolic and diastolic blood pressure was 120/70 mm of Hg. Conjunctiva looked pale due to deficiency of Hemoglobin. During percussion fluid collection was present due to perforation peritonitis. Otherwise no any abnormality detected during physical examination

Diagnostic Assessment: Laboratory test revealed that hemoglobin level was decreased i.e 7.3 gm/dl and mean corpuscular volume was 54fl it was decreased, white blood cell count was increased i.e 28300 micro/lit and platelet was increased with 4.91 and Lymphocytes was decreased with 8%, Granulocytes was 88% it was increased, creatinine level was increased with 2.6meq/l. and albumin level was decreased with 2.7gm/dl and random blood sugar level was 67 mg/dl. Otherwise all routine tests were normal.

Radiological examination was done and it was found in Barium meal report that dilated stomach where greater curvature is below the level of iliac crest and Barium does not passed into duodenum. Gastroscopydone to rule out stomach cancer. Electrolyte study was done for the correction of electrolyte imbalance. X-ray chest erect-free gas under right diaphragm was depicted. Electrocardiogram done to check for hypokalemia. Ultrasonography was done and report was depicted severely edematous mucosa with erosive patches and places, Pyloric canal deformed scope could not be negotiated across the pylorus.

The patient was admitted in our hospital and he was treated for gastric outlet obstruction conservatively. But after that treatment the patient was not relieved of the obstruction through medical treatment. Finally surgeon planned for surgery and under the expert surgeon supervision and the presence surgery was performed.

Pre-operative Care: Nasogastric tube intubation

was done as per doctor's order and Ryle's tube aspiration was done 2 hourly. Abdominal girth was recorded 2 hourly. Bladder was catheterized as per doctor's orders and maintained intake and output strictly. Doctors tried to treat this condition with the help of conservative management i.e. Inj Ceftriaxone 750mg antibiotic intravenously, inj. Metronidazole 500ml antimicrobial intravenously, Inj tramadol pain killer in IV drip, Inj neomol 100ml antipyretic intravenously given, but only the operation was next choice for surgeon to handle this case and before surgery written consent was taken by patient and inform to family members. Physical and psychological preparation was done.

Finally Diagnostic exploratory laparotomy with repair of duodenal perforation with gastrojejunostomy under general anesthesia was done.

Post-operative Care: Post-operatively patient shifted in surgery ICU; propped up position was given,4 hourly Ryle's tube aspiration and abdominal girth was measured. Post operatively continuous cardiac monitoring was done, maintained intake and output of the client. Oxygen inhalation given, asthalin nebulization given to the patient. Inj Ceftriaxone 750mg antibiotic intravenously, Inj. Metronidazole 500ml antimicrobial intravenously, Inj tramadol 2cc in 100ml pain killer in IV drip, Inj neomol 100ml antipyretic intravenously given, Inj.albumin 20% in dextrose 5% in 500ml for 3 to 4 hours given.

Nursing Management: Postoperatively patient was under strict observation of on duty nursing staff. Intravenous fluid administered as per calculated. Observed and recorded the character of the drainage postoperatively. Care of wound and daily dressing was done. Drainage care was taken and maintains intake and output 2 hourly. Vital signs were recorded strictly. The drain output became less and was removed after 4 days. Then patient was shifted in surgical ward from surgical ICU after recovery. Excellent nursing care was given and patient himself reported to nursing staff that, he was very satisfied about nursing care. Complete discharge procedure was explained by nursing staff to the patient and his family members along with medication prescribed at home as advised by surgeon. Explained dietary menu plan to be followed at home. The patient was discharged from ward after 10 days post surgery without any complications.

Patient visited regularly at surgery OPD with his family members, during this period routine checkup was done and he had nocomplaints, therefore no furthermore evaluation was found.

Discussion

Gastric outlet obstruction is a common surgical condition. It is common in male as compared to female. Management of gastric outlet obstruction is a one type of surgical challenge in developing country because of low setting. It is a condition in that gastrointestinal surgery is needed during its study period. On an average nearly about 10 cases per year found of incidence cases.

Sometimes gastric outlet obstruction causes because of effect of others disease process. That produces a mechanical blockage gastric emptying. Gastric outlet obstruction cause due to benign obstruction as the stomach one hear, the stomach can see and stomach can feel also[5] the cause of obstruction benign or malignant disease.

Gastric outlet obstruction develops for very short period of time. Never produce dilatation or distension of the stomach. This condition can be managed by surgical treatment.

Conclusion

Gastric outlet obstruction is very surgical common problem in our setting but if it is notmanage as early as possible this condition will be threat to the patient's life. and make a demand of advanced diagnostic evaluation and therapeutic challenges. Gastric outlet obstruction is very common in males with malignant causes being more prevalent. But it is more found in young patients while malignant. Causes in elder age group.

Overall this condition was very complicated for patient. But due to surgeon's expert team and quality nursing care his condition was improved. In such type of cases, if patient diagnosed at early stage we can prevent mortality and morbidity. Otherwise it will be very serious issues for the patient and patient life can be spoiled. On observation it shows that after exact treatment on cause, patients recover well and no further medical intervention was required.

On admission patient XY's condition was life threatening. It was complicated to handle because of all these symptoms patient was so scared and tensed, hence it was difficult to handle but after treatment and surgery slowly his condition was improved. Patient and his

family members had multiple doubts regarding over all condition and their each and every doubt were cleared. Quality nursing care was given and he had given positive feedback to nursing staff he felt better after surgery and he was satisfied, he always talked to every nursing personnel very nicely and given full co-operation to nursing personnel while giving therapeutic care and he was discharged from hospital with full recovery without any post operative complication and satisfaction, with happy face along with his family members.

Patient in form Consent: While preparing case report patient's informed consent has been taken.

Ethical Clearance: Taken from institutional ethics committee.

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Reference

1. Saha M et al. Gastric Outlet Obstruction: Report of an Exceptional Case. 2017. 37(2):76-79.
2. Sukumar V et al. Demographic and Etiological Patterns of Gastric Outlet Obstruction in Kerala, South India. 2015 Sep. 7(9):403–406.
3. Bandireddyet al. An uncommon cause of gastric outlet obstruction. June 2017. 96.
4. SejalJ et al. Massive Gastric Dilatation in Outlet Obstruction–June 24, 2020.
5. Rudersdorf P et al. 63-Year-Old Male with Gastric Outlet Obstruction. 15 Sep 2014. (01 Sep 2014).