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Case Report

Acute Gastric Dilatation: An Unusual Cause

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Abstract: Acute gastric dilatation is a dangerous condition that has multiple aetiologies but more often anxiety as a factor is often ignored. This is more important in present day care surgical environment where emphasis is to reduce stay of the patient & reduce cost of surgery. This case is an example of a anxious pregnant female who underwent cervical encirclage under sodium pentothal anaesthesia, was discharged on the same day and presented the next day with massive vomiting and abdominal distension. The present pregnancy was precious and obviously the patient was anxious about the procedure although it was a short procedure, thereby stimulating aerophagia that stimulates gastric dilatation. The patient was followed up for one year for identifying new signs and symptoms that could have been the cause of her symptoms but patient delivered normally and was symptom free. This case is unusual as it was done under pentothal anaesthesia and the procedure was extra abdominal.

Keywords: Acute, Gastric, Dilatation

INTRODUCTION

Acute gastric dilatation is an emergency which is now rarely encountered. However this condition needs to be kept in mind particularly in the era of day care surgeries as overlooking can cause mortality more so in obstetric cases. The condition has specific aetiological reasons but anxiety forms an important cause, which more often than not gets overlooked. This case report emphasizes anxiety as the cause of this fatal disorder as all other factors were ruled out. In this case gastric dilatation occurred in spite of using barbiturate as anaesthetic agent and the procedure being extra abdominal thus indicating hyperventilation due to anxiety as the most probable cause.

CASE HISTORY

A 21 year old lady presented in casualty with history of vomiting, epigastric discomfort since one day. She gave history of surgery one day prior to the complaints. She was 4 months pregnant taking treatment at private clinic. On detailed enquiry she gave a history of os tightening under general anaesthesia. The symptoms started one day after the procedure. Her previous two pregnancies ended up in spontaneous abortion in 6^{th} & 7^{th} month of pregnancy.

On admission she was conscious, oriented. Her pulse was 100/min, B.P was 100/80. There was a localized fullness in epigastrium which was extending into umbilical region. Prior to admission the patient gave history of a single bout of massive vomiting. The rest of abdomen was soft, with fullness in epigastric region. There was no guarding or rigidity. There was no obliteration of liver dullness on percussion. There were no bladder or bowel complaints

A diagnosis of acute gastric dilatation was made and bedside ultrsonography was done which corroborated the diagnosis. After securing a wide bore intravenous access, a ryles tube was passed which drained about 2Litre of colourless fluid. The patient was kept under observation. Ryles tube was removed after 48hours and the patient was discharged on 4^{th} day. Before discharge an obstetric sonography was done to see for fetal condition which was normal and gastroscopy to rule out gastric outlet obstruction.

DISCUSSION

The pathogenesis of acute dilatation of stomach was first put forward by Rokitansky in 1842. It was thought that the duodenum was compressed between the spine and superior mesenteric artery leading to gastric outlet obstruction. This was aggravated by lordosis and a thin built of a patient. The second theory proposed was by Brinton 1859 which suggested gastric atony as a post operative complication.[1,2]

Various causative factors have been identified such as acute/chronic infections, spinal deformities, anxiety, diabetes, anorexia nervosa, drugs etc [3,4]. Boas has set down seven different types according to etiology, one of which is those following laparotomies under general narcosis, these being partially analogous to post-operative intestinal paralysis, the etiology of which is still unexplained [5]. Finsterer adds abnormal fermentation with gas formation, and also refers to the cases of acute

post-partum gastric dilatation reported by obstetricians. Dilatation of the stomach has frequently followed abdominal surgery in the past. Acute dilatation of the stomach is a serious condition that is easily diagnosed and should be treated promptly, otherwise it will lead to infarction and perforation [6]. Trauma, anesthesia and surgery, particularly abdominal, pelvic surgery and vagotomy, may directly stimulate the somatic or visceral nerve, autonomic nerve function caused by stomach disorders, gastric inhibitory reflex, resulting in gastric smooth muscle relaxation, thus the formation of expansion. Anaesthesia , tracheal intubation, postoperative oxygen therapy and nasal feeding tube, also make large amounts of gas into the stomach [7,8].

This condition requires immediate recognition as it is a potentially treatable condition. Anticipation of this complication is important as it is likely to occur in anxious persons, major surgery cases. The process of dilatation often starts well before anaesthesia is given as the anxious patients start to have aerophagia which increases after anaesthesia, through the procedure and continues after the procedure is completed [9]. A high degree of awareness is needed if a post operative case presents with effortless vomiting and abdominal distension. According to Ewald, a recognized authority on gastric troubles, the capacity of the stomach to come under the head of dilatation must be fifty-three ounces or more [10]. (one fluid ounce = 30 ml)

The present case had undergone cervical encirclage which is a common extra abdominal short procedure under thiopentone, was discharged and then developed this complication. Patient had undergone two abortions in past and would have been anxious about the procedure she was undergoing for the present pregnancy which would have caused the aerophagia. The anaesthetic used was also neurosuppressing and hence could not be a causative factor. Daycare surgeries should also take into consideration the psychological status of the patient.

CONCLUSION

Acute gastric dilatation occurs in psychologically disturbed patients alongwith other factors. Day care surgery centres should keep in mind the psychological status of the patients also as the pathology of gastric dilatation starts during anaesthesia and extends in post operative period.

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