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Case Report

Tension Gastrothorax

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Abstract
Tension gastrothorax is an emergency which present with acute onset of shortness of breath and may be easily confused with pneumothorax. Delay in diagnosis and intervention may be life threatening. X ray chest and CT chest are very important to make a diagnosis and surgical repair of the defect through which the gastric contents herniate into diaphragm is the definitive management.
Keywords: *Gastrothorax, Shortness Of Breath, Emergency, Pneumothorax.*

Introduction

Tension gastrothorax is a life-threatening condition which is caused due to herniation of the stomach into the thorax as a result of increased intra-abdominal pressure through diaphragmatic defect. it results in an acute onset of respiratory distress which can easily be misdiagnosed. We here in present a case of an adolescent girl presenting with acute abdomen misdiagnosed as hydropneumothorax.

Case Report

A 17 years old adolescent girl presented to the paediatric emergency department of SLBSGMCH, Ner chowk with complaints of an acute onset of pain in abdomen, moderate to severe in intensity associated with non-projectile vomiting around 18-20 episodes for 8 hours. On examination the child was conscious, fully oriented and afebrile with HR-98bpm, RR-24/min, BP-106/60mmofHg. On Respiratory system examination Breath sounds were decreased on left side with no adventitious sounds. rest of the systemic examination was normal. The patient was fully immunised, anthropometric parameters were appropriate for her age and there was no significant past history or any hospitalisations in the past. Prior to admission to our hospital she was taken to another health facility from where she was referred as a case of hydropneumothorax to us. On chest X-ray (fig.2) there was air fluid level on left side with mediastinal shift to right with collapse of left lung. On CT scan there was herniation of gastric fundus in left hemithorax associated with cardio-

mediastinal shift to right side with relaxation collapse of left lung with apical sparing which was suggestive of gastrothorax (fig. 3). Gastric decompression of the patient was done by aspirating gastric contents using nasogastric tube and the patient was planned for referral to PGIMER Chandigarh for surgical intervention. The child was admitted at PGIMER Chandigarh, where she collapsed on D7 of admission.

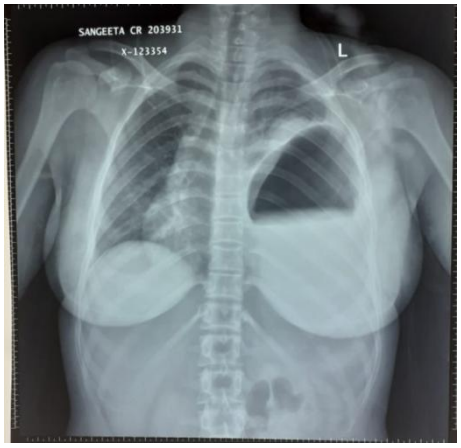

Fig 1

Fig 2

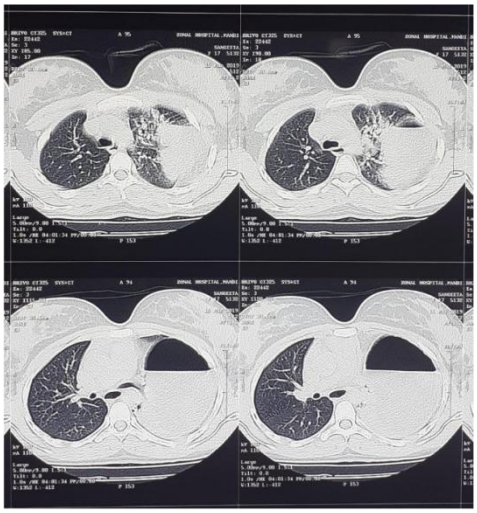

Fig 3

Discussion

Gastrothorax was firstly discussed in 1984[(1)] in literature as a case of herniation of gastric contents into thorax as a result of trauma in an adult patient. There are very few reported cases of gastrothorax in literature. it is a life-threatening condition which occurs as a result of herniation of stomach into hemithorax via diaphragmatic defect, which may be congenital or acquired as aresult of trauma. most of the congenital diphragmatic hernia present at birth with respiratory distress. A few cases around 10% may present later in life[(2)]. A likely chain of pathophysiology events leading to tension gastrothorax is described by Horst et al[(3)]. Tension gastrothorax can compress the ipsilateral pulmonary parenchyma and the mediastinum to the opposite hemithorax causing respiratory distress and obstruction of venous return to the heart. Delayed diagnosis of tension gastrothorax results in cardiac arrest or, in the worst cases, sudden death. Late CDH is difficult to diagnose[(4)] due to its misleading presentation and should always be considered in acute onset respiratory distress in a previously healthy child with X-ray abdomen showing air fluid level with mediastinal shift to the right. The first step in the management is always to decompress the stomach to reduce the intrathoracic pressure. Instant clinical improvement should occur following the gastric decompression and if it fails to occur transthoracic needle decompression of the stomach in a lower intercostal space guided by the chest x-ray is recommended[[5]]. The definitive management is surgical decompression[(6)] of the gastric component and repair of the defect.

Conclusion

Although tension gastrothorax is a rare entity but it must always be kept as a differential diagnosis in case of a previously healthy child with acute onset of severe respiratory distress to allow prevent catastrophic results. Thorough clinical examination along with radiological evaluation should be done for prompt diagnosis. It should be followed by emergency decompression of the

stomach before laparotomy with reduction of herniated viscera and repair of the diaphragmatic defect.

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