Abstract

In contrast to the world thoracic literature, less attention has been payed to blunt diaphragmatic ruptures in hungarian surgical literature. Based on 12 cases of blunt traumatic diaphragmatic rupture at Thoracic Surgical Clinic (1981-2001), circumstances of late recognition is evaluated. In majority of patients history of thoracic and/or abdominal trauma has been totally forgotten, resulting false diagnosis of tension pneumothorax in one. In 3 others the diaphragmatic tear was missed during the previous laparotomy in one or considered as a hiatal hernia in the second and a really recurrent hernia was confused with a posttraumatic diaphragmatic palsy in the third. A subgroup of this entity, the two-steps rupture of one patient, may be considered as a life-threatening urgency, when early approach is mandatory. In this series for diaphragmatic reconstruction in dominantly left-sided ruptures (10) a similar sided posterolateral thoracotomy were used, and right-sided in the remaining 2, buttressed for thorocolaparotomy or right thoracotomy were require for hernia repair. We used interrupted suture, buttressed with vicryl mesh at only one patient. In almost all cases a visceral herniation (stomach, intestine, spleen, liver and omentum) into the chest cavity was present, most commonly through the paracardiac area in left and central tendon on right side.

Keywords: Diaphragmatic rupture; Missed thoracic and/or abdominal trauma; Delayed recognition; Risk factors

Introduction

In close connection with increasing traffic and car accidents - phenomenon of modern life- large series of diaphragmatic ruptures [1-4], including even right sided one [5-8] were published in world literature.

The aim of this retrospective analysis is to evaluate the difficulties of accurate diagnosis of blunt traumatic ruptures of diaphragm and to call attention on serious complications of delayed recognition.

Material and Methods

From 1981 to 2001 12 patients with chronic occult diaphragmatic disruption have been managed at our Clinic. All but two were left-sided hernias with delayed presentation, at least 6 month after injury. In the majority of the cases the fact of blunt thoracic and/or abdominal trauma have been forgotten and the injuries to the diaphragm were not suspected before admission, resulting false diagnosis of tension pneumothorax in one. In 3 other cases rupture of the left-sided diaphragm was missed at prior laparotomy, a recurrent left-sided hernia was interpreted at the previous Institute as posttraumatic phrenicus palsy, and erroneous diagnosis of massive hiatal hernia was done in the thrid patient. In case of a young patient the left-sided rupture with gastric stangulation developed 7 days after trauma, representing a veritable two-steps rupture.

The correct diagnosis of occult diaphragmatic hernia was established preoperatively in all instances. The left posterolateral thoracotomy was the preferred approach, except 3 cases when a left thoracolaparotomy or right thoracotomy were require for...
so transthoracic approach for diaphragmatic repair seems to be the best approach [16]. This series like other large series reflects that delayed recognition of diaphragmatic rupture [17,18] may be considered as a primordial factor of mortality.

Reference


