Traumatic Abdominal Wall Hernia: Case Report & Review of Literature

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INTRODUCTION

Traumatic abdominal wall hernia (TAWH) is an uncommon but serious condition associated with blunt trauma to the abdomen. The diagnosis is often discovered by imaging or during surgical exploration. We report a case of TAWH and review of current literature.

METHODS

Our case patient is a 36-year-old motorcyclist who presented after a high-speed road traffic accident (RTA), where he was hit from the back and flung off the motorbike. Significant physical examination findings include a large degloving injury over the left anterior chest wall exposing the underlying pectoralis major (Figure 1), and a diffusely tender distended abdomen. There was a soft ill-defined swelling present over epigastrium and left upper quadrant. Computed tomography (CT) scan revealed a large left anterior abdominal wall hernia through the rectus abdominis and external oblique (Figure 2).


Figure 1


Figure 2

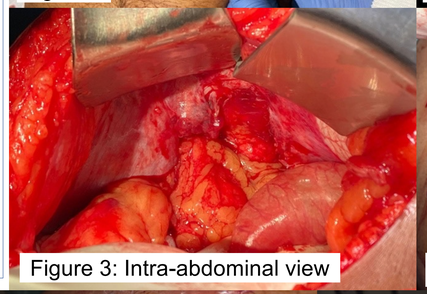

Figure 3: Intra-abdominal view

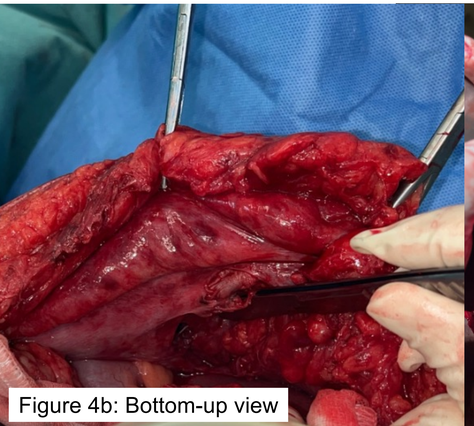

Figure 4a: Top-down view

RESULTS

He underwent an exploratory laparotomy through a supraumbilical midline incision. Intraoperatively, the hernia was found to contain part of the mid transverse colon and omentum through the ruptured left rectus abdominis external and internal oblique muscles (Figure 3). This traumatic hernia is in direct communication with the open degloving injury over the left chest wall (Figure 4a-b). In view of the large chest wall degloving injury and communication between both wounds with higher risks of cross contamination, temporary abdominal closure was performed. The patient was kept intubated and transferred to the intensive care unit. The patient underwent a relook laparotomy, open suture of the left upper abdomen traumatic hernia and advancement flap closure of the left chest wound (Figure 5a-d) within the next 48 hours. He had an uneventful recovery and was discharged five days later. At the outpatient review three weeks later, all wounds were healed with no infection or hernia recurrence (Figure 6).

DISCUSSION

TAWHs are rare injuries that are associated with blunt abdominal trauma, with most occurring secondary to RTAs. Incidence and specifics on how the impact during the blunt abdominal trauma affects the formation of TAWH is not well known. Imaging is needed to confirm the location and extent of the hernia to facilitate management. Most cases require surgical repair of the hernia with the decision of early versus delayed and mesh versus mesh-free to be tailored case-by-case.


Figure 4b: Bottom-up view

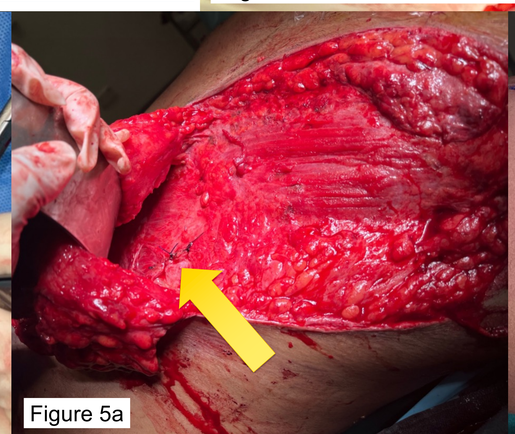

Figure 5a


Figure 5b


Figure 5c


Figure 5d


Figure 6