

Originally described as an operative diagnosis, preoperative diagnosis of herniation through the foramen of Winslow is possible with a variety of imaging modalities. Several authors have described the plain film findings. Typically, the gastric bubble is displaced laterally and anteriorly by a lesser sac mass.³ CT scan features described by Wojtasek and subsequently by Schuster include the following: 1) mesenteric fat and vessels posterior to the portal vein, common bile duct and hepatic artery; 2) gas and/or fluid in the lesser sac with a “bird’s beak” pointing toward the epiploic foramen; and 3) the cecum absent from its anatomic position.^{4,5}

The upper GI study helped to differentiate the gastric bubble from the lesser

sac gas. The lower GI study confirmed the suspicion of a lesser sac hernia with the contrast narrowing in the colon (while passing through the foramen) before filling the cecum in the lesser sac.

At laparotomy, the right colon was found viable in the lesser sac. Surgical options include resection of the involved bowel, versus cecopexy. Most authors to date have found ischemic bowel, warranting resection. There are few instances in the literature where viable bowel was found, although no consensus has been established on management in this instance. We elected to resect the affected bowel, intending to eliminate any chance of disease recurrence.

Competing interests: None declared.

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Septal aperture: an anatomic variant predisposing to bilateral low-energy fractures of the distal humerus

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Septal aperture is the absence of a septum in the coronoid-olecranon fossae of the distal humerus. It is a relatively common anatomic variant in human distal humeri thought to occur early in childhood. We report a case of this atypical fracture in a teenage boy.

Case report

A 16-year-old healthy boy tripped while running, landed on his outstretched left forearm and felt immediate pain in his left elbow. A plain radiograph showed an intercondylar fracture through a septal aperture of his left distal humerus (Fig.

1). The intra-articular fracture exited distally through the trochlear groove and extended proximally through the medial column.

Through a posterior approach, the fracture was treated with open reduction and internal fixation with an olecranon osteotomy under general anesthesia. Intraoperatively, the fracture was found to be rotationally unstable. An anti-glide configuration with a 2-hole semitubular plate was placed over the apex of the fracture to add stability. Postoperatively, the fracture healed without complication, and the boy had almost full range of motion of the elbow at 10 weeks. Subse-

quent follow-up showed continued improvement in elbow function. Then, approximately 14 months after the left humeral fracture, he took an innocuous fall on the ice while playing hockey and suffered an intra-articular T-type fracture to his right distal humerus (Fig. 2). The fracture was once again through a septal aperture and required open reduction and internal fixation. Like his left distal humeral fracture, this one was also rotationally unstable, but involved both medial and lateral columns. Through a posterior approach, 2 contoured 12-hole reconstruction plates were fixed over the 2 columns. This dual plate fixation

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Notes de cas

combined with a transverse lag screw through the trochlea gave adequate compression and stability to the fracture. On further follow-up, no other complications were noted, and the boy gradually regained near-normal function of his right elbow.

Discussion

A septal aperture is thought to occur early in childhood from excessive cancellous bone resorption in the distal humerus.¹ One anthropologic study of 872 pairs of humeri in an American population estimated its prevalence at 6%.² Another study showed bilateral involvement in one-third of specimens examined.¹ Consequently, the bony defect acting as a stress-riser may play a significant role in altering fracture patterns and selecting appropriate management. It may also increase susceptibility to a fracture on the affected arm secondary to relatively low-energy trauma.

The bilateral distal humeral fractures in our case report occurred in a healthy young male, on 2 separate occasions. Normally, a substantial force is required for an intercondylar fracture to occur in

adults.³ The magnitude of force inferred from the mechanism of injury is disproportionately small considering the extent of the fractures. A septal aperture is associated with decreased robustness, smaller humeral diameter and a narrower canal diameter.^{4,5} We believe the septal apertures, in his otherwise healthy humeri, probably acted as stress-risers from which these atypical fractures originated following a low-energy impact.

The consequence of septal apertures and distal humeral fractures has been previously addressed in a study by Kuhn and associates.³ Their series was based on fractures sustained by healthy young adults (mean age 15 yr), similar to our case. However, the bilateral fractures we describe here demonstrate that these injuries should not necessarily be considered stable as suggested in their study. We contend that a more rigid construct of fixation such as multiple reconstruction plates with or without a lag screw may be necessary to ensure acceptable healing and full recovery of the patient's elbow function. We also emphasize the importance of patient education regarding a possible increased risk of future low-energy fractures. Finally, we believe

the contralateral extremity should be evaluated for the presence of an aperture in order to educate the patient regarding the risks.

Competing interests: None declared.

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FIG. 1. Plain radiograph shows an intercondylar fracture through a septal aperture in the distal humerus.



FIG. 2. Intra-articular T-type fracture to the right distal humerus through a septal aperture.