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Our Case Reports a Component of Acute Care Surgery

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The term acute abdomen refers to any condition producing signs and symptoms of abdominal pain and tenderness, which requires emergency medical or surgical consultation and management. Frequently, the acute abdomen is caused by surgical intra-abdominal diseases necessitating prompt diagnosis and surgical exploration. The commonest clinical scenarios include hemorrhage, infection-inflammation, perforation, obstruction and ischemia [1]. Less frequently, non-surgical as well as extra-abdominal diseases can produce symptoms mimicking an acute abdomen. Solid knowledge of the underlying causes and high level of clinical suspicion, together with a detailed history and a complete physical examination of the abdomen, will guide the surgeon to the correct diagnosis, appropriate diagnostic work-up (laboratory and imaging studies) and the necessary operation [2].

The discipline of surgery has become increasingly specialized for multiple reasons, including rapid expansion of medical knowledge, advances in techniques and technologies, and a rise in patient demands arising from the proliferation of health care information on the Internet. This rapid expansion of the subspecialties has resulted in the creation of more centers of excellence and centralisation of care, which has the unintended effect of further limiting patients' access to optimal care. Another consequence of this shift toward specialisation is that specialised surgeons often are reluctant to take an emergency general surgery call one of the following reasons: It shifts the focus of their practice away from their specialty, they prefer to avoid getting involved with problems outside their area of expertise and a general surgery call would increase their exposure to liability.

Acute Care Surgery is a significant part of General Surgery managing surgical acute abdomen. However, during the past three decades efforts were made worldwide to develop organised trauma centers, without at the same time giving the appropriate emphasis for developing the acute abdomen diagnosis and treatment and leaving it to general emergency care facilities. Currently, a trend towards reconsidering acute care surgery as an important part of abdominal emergency surgery has been observed.

In this issue's section of case reports, a significant number of manuscripts entailed with acute surgery care are presented. The first report by C. Avgoustou et al [3] describes four cases of right colonic volvulus, which were suspected using imaging studies and diagnosed and managed intra-operatively. Colonic volvulus is the twisting of the bowel on its mesenteric vessel axis, resulting in obstruction and varying degrees of vascular impairment. The segment of bowel that twists lacks fixation to the retroperitoneum and has a freely moving mesocolon, with sigmoid colon accounting for more than two thirds of all cases. Marked abdominal distention is very characteristic and abdominal tenderness relates to the degree of vascular compromise. Imaging studies are helpful, demonstrating the dilated bowel, as well as pathognomonic sign, such is the "whirl" sign (rotation of mesenteric vessels). After correction of water and/or electrolyte disorders and hemodynamic status, the patient is operated. In the operating room all four cases were diagnosed with the unusual right colonic volvulus and patients underwent right hemicolectomy as a definite treatment.

The second case report by N. Kochylas et al [4] deals with a rare complication of cholelithiasis, namely obstruction of gastric or duodenal outlet by an impacted gallstone, a condition called Bouveret's syndrome. Clinical diagnosis maybe difficult and is suggested by imaging, were Rigler's triad can be demonstrated: gastric outlet obstruction, pneumobilia and a large gallstone impacted in the first part of the duodenum. Surgical management is challenging due to the presence of the gallstone in the duodenum. In order to avoid any complications resulting from incising and suturing the duodenum, milking of the gallstone to the stomach or small bowel is the preferred approach and described by authors in this paper.

In the third case report by S. Chaterjee et al [5] a patient with a left Morgagni hernia (congenital diaphragmatic) is presented. The stomach, omentum and transverse colon were involved, while a perforation was observed in the pylorus after reduction of the contents to the abdomen. This rare hernia is usually present in asymptomatic patients and when complicated presents insidiously as gastrointestinal obstruction with associated ischemia and/or perforation. Emergency surgery for complicated Morgagni's hernia is obligatory, during which reduction of the bowel and inspection for signs of ischemia determine treatment. Resection of strangulated bowel and closure of the defect are the main

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aspects of surgical management.

The fourth case report by Ar. Papadopoulos et al [6] describes one of the first successful uses of Idarucizumab for Dabigatran reversal in a patient with non-valvular atrial fibrillation who was operated on a strangulated femoral hernia. Anti-coagulant drugs used for several reasons (mainly atrial fibrillation) remains a difficult issue when an emergency operation is mandatory for acute abdominal conditions. Currently, the use of non-vitamin k anticoagulants has made this issue more difficult because reversal has not been established yet. The use of this new agent (idarucizumab) has not been widely used, but its success in reversal of dabigatran has been suggested by a prospective non-randomised study (REVERSE-AD trial) where complete reversal and maintenance of hemostasis was achieved.

The last case report by H. Kataria et al [7] describes two patients suffering of isolated duodenal injuries secondary to blunt abdominal trauma. These cases represent surgical technical challenges and success depends on appropriate experience on operating duodenum and pancreas. Avoidance of Whipple's procedure with its associated morbidity and mortality necessitates a pancreas preserving duodenectomy, preserving integrity of the pancreatic and biliary system. Careful inspection of the completely Kocherised duodenum for bile, air bubbles or wall hematomas is important during exploratory laparotomy. Surgical treatment includes a variety of options, which depend on the severity and location of injury and the expertise of the surgeon dealing with this difficult problem.

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