

Giant incisional hernia containing a large renal cyst

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Introduction: Hernias are common surgical diseases. Incidence of incisional hernia depends upon the size and location of the former incision and ranges from 3 to 20 percent. In clinical practice the variability of surgical techniques for hernia repair is great and a wide range of publications are available. Surgery for renal cysts depends on whether they are classified simple or complex. Simple cysts are more common and the majority requires no treatment. Complex renal cysts are associated with an increased risk of malignancy. This is the first report on a giant incisional hernia containing bowl combined with a voluminous renal cyst.

Case description: An 80-year-old female diagnosed with a giant incisional hernia combined with a large left renal cyst was referred to our surgical department from a peripheral hospital for hernia repair. Physical examination showed a ventral incisional hernia (50x50cm) extending to the upper thigh with multiple skin lesions and clinical signs of obstipation. CT scan revealed two hernial orifices measuring 13cm and 4.5cm in diameter. The giant hernial sac contained not only incarcerated small and large bowel but also a large left renal cyst containing 3 litres of fluid.

Results and Conclusions: We performed a second median laparotomy with complete release of all abdominal adhesions. The renal cyst was resected and its base marsupialized. Hernia repair was achieved by both sided compartment separation as described by Ramirez combined with an intraperitoneal onlay mesh sized 40cmx60cm. Intraoperative measurement of creatinine in the cyst fluid revealed no connection to the urinary tract making further renal surgery unnecessary. By resecting the renal cyst, intraabdominal volume was markedly reduced allowing tension free abdominal wall reconstruction. Histological examination of the cyst, the hernial sacs and the resected skin revealed no surprising findings. Postoperative recovery was uneventful and drains were removed before discharge. Bowel movement started on the third postoperative day. Wound dehiscence was treated by negative pressure wound therapy and no recurrence has yet been detected two months postoperatively.

Take home message: Surgical repair of giant incisional hernias is challenging and is associated with significant morbidity and mortality. Individual planning of abdominal wall reconstruction is key for successful treatment and is even the more important in complex hernias with loss of domain or accompanying intraabdominal pathologies.

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The Alvarado scoring system in acute appendicitis: A 6-month cross-sectional study to evaluate its reliability in reducing the rate of negative appendectomy at Queen's Hospital, Burton

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Introduction: Globally, acute appendicitis is the most common paediatric intra-abdominal surgical emergency. The variations at presentation and the lack of a single reliable test to aid diagnosis may pose challenges

to experienced surgeons. There are many scoring systems employed by surgeons to reduce the percentage of negative appendectomies. One such example is the Alvarado system. The aim of our study was to evaluate the usefulness of the Alvarado scoring system in reducing the percentage of negative appendectomies at Queen's Hospital, a small district general hospital in England.

Case description: A 6-month cross-sectional study was carried out. Patients who were 16 years old or younger with a preliminary diagnosis of acute appendicitis were included in the study and their Alvarado score calculated. On the basis of their individual Alvarado score, they were placed in one of two groups: Group A (Alvarado score < 6) and Group B (Alvarado score ≥ 6). The signs, symptoms, laboratory values, surgical interventions and histopathological reports, the gold standard for diagnosis of acute appendicitis, were then evaluated. The reliability of Alvarado scoring system was assessed by calculating the rate of negative appendectomies which we defined as patients showing no signs of appendiceal inflammation on histopathology of the surgically removed appendix.

Results and Conclusions: 26 patients (21 males, 5 females) were included in the study. They comprised 9 patients in Group A (34.6%) and 17 patients in Group B (65.4%). The largest age group was represented by 10-15 year olds (n=16, 61.5%). The symptoms at presentation included right iliac fossa pain (92.3%), nausea or vomiting (76.9%) and anorexia (73.1%). Clinical examination revealed tenderness in the right iliac fossa in all patients (100%), rebound tenderness in 16 cases (61.5%) and elevated temperature in 3 cases (11.5%). Laboratory analysis showed raised total leukocyte count in 12 cases (46.2%) with neutrophilia in 10 cases (38.5%). Of the 26 cases, 84.6% (n=22) were confirmed to have inflamed appendix by the surgeon performing the appendectomy at the time of surgery. However, final diagnosis of inflamed appendix based on histopathology reports were confirmed in 19 cases (73.1%). The overall negative appendectomy rate was therefore 26.9% (7 cases). The rate of negative appendectomies in males and females were 15.4% and 11.5% respectively. The negative appendectomy rate in Group A and B were 33.3% and 17.6% respectively. Sensitivity and specificity of Alvarado score in our study were 82% and 100% respectively.

Take home message: Regarding, the reliability of the Alvarado scoring system, our recommendations are:

- (1) false negatives are few especially in high Alvarado scores (9 or greater);
- (2) further investigations may be employed in low scores (< 6) where the number of false negatives are greater;
- (3) the Alvarado scoring system should be used to supplement the diagnostic accuracy of acute appendicitis. It does not however replace the experience and expertise of the surgeon.

Surgery were performed in all the cases, along with conservative treatment pre-and post-surgery. Final diagnosis using histopathology reports was confirmed in 19 cases (73.1%) The overall rate of negative appendectomy was therefore 26.9%. Sensitivity and positive predicted value of the Alvarado score were 82% and 100% respectively.

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A phlegmon secondary to retroileal appendicitis: A rare cause of mechanical small bowel obstruction

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Introduction: Appendicitis is common surgical emergency with a life-time risk of about 7% and a perforation risk of 17-20%. In young patients diagnosis does not pose a great difficulty and the surgical management is generally good. However in the elderly with varied presentation and a