23892423

Reduced use of computed tomography in patients treated with interval appendectomy after implementing a protocol from a prospective, randomized trial.

Published in: Pediatric surgery international (Dec 2013)

BACKGROUND: In 2009, we instituted a protocol to standardize care for patients undergoing interval appendectomy based on results from a prospective trial that demonstrated a reduction in the mean number of computed tomography (CT) scans performed. The goal of this study was to determine if our current practice now resulted in fewer CT scans as a result of this trial.

METHODS: A retrospective review of all patients undergoing interval appendectomy for perforated appendicitis from March 2009 to March 2011 was performed. Demographics and outcomes were compared to previously collected data from a retrospective study prior to institution of the protocol and to the prospective trial.

RESULTS: During the study period, 45 patients underwent interval appendectomy. There were no differences in demographics among the three studies. Similar numbers of patients underwent aspiration or percutaneous drainage. There continues to be a significant reduction in the number of CT scans (3.5 ± 2.0 vs. 2.1 ± 1.3, P = 0.0001) and health care visits (7.6 ± 2.8 vs. 4.5 ± 1.4, P = 0.0001) when comparing management prior to the prospective trial to management since its completion.

CONCLUSION: A protocol for management of patients undergoing interval appendectomy care results in fewer health care visits and CT scans.

Q1 The correct answer is Yes: The abstract states that the study includes patients undergoing interval appendectomy.

Q2. The correct answer is 45: “During the study period, 45 patients underwent interval appendectomy.”

Q3. The correct answer is Yes: The fact that all patients underwent “interval appendectomy for perforated appendicitis” suggests that the patients had suspected appendicitis.

Q4. The correct answer is Yes: The results report a reduction in the number of CT scans, which are used to diagnose appendicitis.

24973525

Ectopic spleen: An easily identifiable but commonly undiagnosed entity until manifestation of complications.

Published in: International journal of surgery case reports (2014)

INTRODUCTION: Ectopic spleen is an uncommon clinical entity as splenectomy for treatment of ectopic spleens accounts for less than 0.25% of splenectomies. The most common age of presentation is childhood especially under 1 year of age followed by the third decade of life.

PRESENTATION OF CASE: The present report refers to a patient with torsion of a pelvic spleen treated with splenectomy. The patient exhibited a period of vague intermittent lower abdominal pain lasted 65 days followed by a period of constant left lower quadrant pain of increasing severity lasted 6 days. On the first 65 days, vague pain was attributed to progressive torsion of the spleen which resulted in venous congestion. On the last 6 days, exacerbation of pain was attributed to irreducible torsion, infraction of the arterial supply, acute ischemia, strangulation and rupture of the gangrenous spleen. Diagnosis was made by CT which revealed absence of the spleen in its normal position, a homogeneous pelvic mass with no contrast enhancement, free blood in the peritoneal cavity, and confirmed by laparotomy.

DISCUSSION: Clinical manifestations of ectopic spleen vary from asymptomatic to abdominal emergency. Symptoms are most commonly attributed to complications related to torsion. Operative management, including splenopexy or splenectomy, is the treatment of choice in uncomplicated and complicated cases because conservative treatment of an asymptomatic ectopic spleen is associated with a complication rate of 65%.

CONCLUSION: Although an ectopic spleen can be easily identified on clinical examination, it is commonly misdiagnosed until the manifestation of complications in adulthood.

Q1 The correct answer is Yes: It is a primary study of a human.

Q2. The correct answer is 1: The single patient is suggested by the phrases “Presentation of case” and “The present report refers to a patient…”

Q3. The correct answer is No: Although the abstract states that “a period of constant left lower quadrant pain of increasing severity lasted 6 days,” the total pain duration was 71 days.

Q4. The correct answer is Yes: The abstract states that “diagnosis was made by CT…” and CT is a diagnostic modality for appendicitis.

24952800

Intraluminal appendiceal fluid is a predictive factor for recurrent appendicitis after initial successful non-operative management of uncomplicated appendicitis in pediatric patients.

Published in: Journal of pediatric surgery (Jul 2014)

BACKGROUND: The risk factors for recurrent appendicitis in pediatric patients are unclear. This study aimed to identify the predictive factors for recurrent appendicitis in pediatric patients who initially underwent successful non-operative management of uncomplicated appendicitis.

METHODS: Potential predictive factors for recurrent appendicitis in terms of clinical characteristics, laboratory data, and abdominal ultrasonography and computed tomography findings, were evaluated.

RESULTS: This study included 125 patients who underwent initial successful non-operative management of appendicitis. The rate of recurrent appendicitis was 19.2%, and the mean time to recurrence was 12.6 months. Univariate analyses found that rebound tenderness, muscle guarding, appendicoliths, appendiceal diameter >9 mm, and intraluminal appendiceal fluid were associated with recurrent appendicitis. Multivariate analysis identified only intraluminal appendiceal fluid as an independent predictor of recurrent appendicitis.

CONCLUSIONS: Intraluminal appendiceal fluid is a predictive factor for recurrent appendicitis after initial non-operative management. The results of this study provide valuable information that may help to determine the appropriate management during the first episode of appendicitis.

Q1 The correct answer is Yes: The abstract states that the study includes patients who underwent initial successful non-operative management of appendicitis.

Q2. The correct answer is 125: The abstract states that the study included 125 patients.

Q3. The correct answer is Yes: Because the study evaluates patients with recurrent appendicitis, it can be inferred that appendicitis was suspected in the study group.

Q4. The correct answer is No: This study is looking at recurrent, rather than new appendicitis.

PMID: 24886744

The relationship between lean mass, muscle strength and physical ability in independent healthy elderly women from the community.

BACKGROUND/OBJECTIVES: The association between muscle mass, strength and physical performance has been established in the elderly with co-morbidities. In this study, lean and fat mass, bone mineral density, knee extension and flexion strength and physical ability tests in healthy independent elderly women were investigated. Main determinants of lean mass, strength and physical ability were determined searching for predictors of healthy aging.

METHODS: A total of 100 healthy women aged >/= 65 years considered independent and active were invited. Bone mass and body composition were assessed by DXA. The strength of the lower limb was assessed by isokinetic dynamometry, and physical ability was measured by: Timed Up and Go (TUG), Berg Balance Test (BBT) and Dynamic Gait Index (DGI).

RESULTS: Women were on average 70.8+/-4.92 years old, had BMI of 27.38+/-5.11 kg/m2 and fat mass of 26.96+/-9.62 kg or 40.65+/-8.06%. Total lean mass and appendicular lean mass (ALM) were 35.38+/-4.83 kg and 15.32+/-2.26 kg, respectively, while relative skeletal mass index (RSMI) was 6.51+/-0.77 kg/m2. Age did not correlate significantly with ALM. Age and ALM were the main determinants of the strength of the lower limb (p<0.001) while age and strength of the lower limb were significantly associated with the performance on the physical tests (p<0.001).

CONCLUSION: Age has a negative impact on the strength and the physical performance in independent healthy women without co-morbidities. Physical ability tests are positively influenced by the strength of the lower limb. These relationships suggest that muscle strength should be the parameter to be prioritized when preparing for healthy aging.

Q1 The correct answer is Yes: The abstract states that the study includes women and looked at determinants of healthy aging

Q2. The correct answer is 100: The abstract states: “A total of 100 healthy women . . . were invited.”

Q3. The correct answer is No: This study is not about abdominal pain at all. Note: the search captured several studies like this one, having to do with “appendicular lean mass (ALM),” which is not relevant to the current project.

Q4. The correct answer is No: This study is not about diagnosis of appendicitis.

PMID 24737848

Intraoperative motive for performing a laparoscopic appendectomy on a postoperative histological proven normal appendix.

BACKGROUND: Diagnostic laparoscopy is the ultimate tool to evaluate the appendix. However, the intraoperative evaluation of the appendix is difficult, as the negative appendectomy rate remains 12%-18%. The aim of this study is to analyze the intraoperative motive for performing a laparoscopic appendectomy of an appendix that was proven to be noninflamed after histological examination.

METHODS: In 2008 and 2009, in five hospitals, operation reports of all negative laparoscopic appendectomies were retrospectively analyzed in order to assess the intraoperative motive for removing the appendix.

RESULTS: A total of 1,465 appendectomies were analyzed with an overall negative appendectomy rate of 9% (132/1,465). In 57% (841/1,465), a laparoscopic appendectomy was performed, with 9% (n = 75) negative appendectomies. In 51% of the negative appendectomies, the visual assessment of the appendix was decisive in performing the appendectomy. In 33%, the surgeon was in doubt whether the appendix was inflamed or normal. In 4%, the surgeon was aware he removed a healthy appendix, and in 9%, an appendectomy was performed for different reasons.

CONCLUSION: In more than half of the microscopic healthy appendices, the surgeon was convinced of the diagnosis appendicitis during surgery. Intraoperative laparoscopic assessment of the appendix can be difficult.

Q1 The correct answer is Yes: Although the abstract does not explicitly mention that it is a study of patients, the unit of analysis is appendectomies, which implies human subjects.

Q2. The correct answer is 1,465: The abstract states: “A total of 1,465 appendectomies were analyzed . . .”

Q3. The correct answer is Yes: Because all patients underwent appendectomy, it can be inferred that they had suspected appendicitis.

Q4. The correct answer is Yes: This study is evaluating laparoscopy as a diagnostic method.

PMID 24250064

Stump appendicitis: A rare clinical entity.

Stump appendicitis is one of the rare delayed complications after appendectomy with reported incidence of 1 in 50,000 cases. Stump appendicitis can present as a diagnostic dilemma if the treating clinician is unfamiliar with this rare clinical entity. We report an 18-year-old patient with Stump appendicitis, who underwent completion appendectomy laparoscopically.

Q1 The correct answer is Yes: It is a primary study of a human.

Q2. The correct answer is 1: The abstract states: “We report an 18-year-old patient . . .”

Q3. The correct answer is Yes: Because the patients underwent appendectomy, it can be inferred that she had suspected appendicitis.

Q4. The correct answer is No: This study is evaluating diagnosis or recurrent/repeat appendicitis in a patient who had already been treated for appendicitis.

PMID 24841008

Complicated appendicitis: analysis of risk factors in children.

BACKGROUND: Acute appendicitis (AA) is the most common surgical emergency in childhood. The risk of rupture is negligible within the first 24 h, climbing to 6% after 36 h from the onset of symptoms. Because of difficulty in accurate diagnosis of AA a significant number of children still are being managed when it is already perforated. There is always a need to make an early diagnosis of AA and to find out the risk factors associated with development of complication in this condition.

PATIENTS AND METHODS: A total of 102 patients with a clinical diagnosis of AA were admitted during the study period. On admission, a good clinical history and proper physical examination was performed. All the eligible patients who finally diagnosed clinically as having AA were planned for emergency open appendectomy. The removed appendix was sent for histopathological examination in all the study subjects.

RESULTS: Out of 102 cases, 93 cases were histopathologically appendicitis, rest nine cases showed no evidence of inflammation so the rate of negative appendectomy was around 9%. On histopathology normal appendix was found in nine patients (8.9%), AA in 71 patients (69.6%), complicated appendicitis (CA) which includes perforated and gangrenous appendicitis was present in 22 patients (21.5%). Perforations were more common in patients who were younger than 5 years. >60% patients presented with CA when the duration of pain was >72 h. Presence of appendicolith increased the probability of CA.

Q1 The correct answer is Yes: It is a primary study of patients with a clinical diagnosis of appendicitis.

Q2. The correct answer is 102: The abstract states: “A total of 102 patients. . .”

Q3. The correct answer is Yes: The patients all had a clinical diagnosis of appendicitis

Q4. The correct answer is Yes: This study is looks at predictors that could be used to diagnose complicated appendicitis: “There is always a need to make an early diagnosis of AA and to find out the risk factors associated with development of complication in this condition.”

PMID: 24887670

Short bowel syndrome after laparoscopic procedures.

Short bowel syndrome (SBS) is a potential postoperative complication after intra-abdominal procedures. Whether the laparoscopic approach is as likely to result in SBS or the causative mechanisms are similar to open procedures is unknown. Our aim was to evaluate potential mechanisms of SBS after laparoscopic procedures. The records of 175 adult patients developing SBS as a postoperative complication were reviewed. One hundred forty-seven patients had open procedures and 28 laparoscopic. Colectomy (39%), hysterectomy (11%), and appendectomy (11%) were the most common open procedures. SBS followed laparoscopic gastric bypass (46%) and cholecystectomy (32%) most frequently. The mechanisms of SBS were different: adhesive obstruction (57 vs 22%, P < 0.05) was more common in the open group, whereas volvulus (18 vs 46%, P < 0.05) was more common after laparoscopy. Overall, ischemia (25 vs 32%) was similar but significantly more laparoscopic patients had postoperative hypoperfusion (32 vs 67%, P < 0.05). Eleven of the 13 laparoscopic bariatric procedures had internal hernias and volvulus. Of the nine patients undergoing cholecystectomy, four developed ischemia early postoperatively presumably secondary to pneumoperitoneum. SBS is an increasingly recognized complication of laparoscopic procedures. The mechanisms of intestinal injury differ from open procedures with a higher incidence of volvulus and more frequent ischemia from hypoperfusion.

Q1 The correct answer is Yes: It is a primary study of patients records.

Q2. The correct answer is 175: The abstract states: “The records of 175 adult patients . . .”

Q3. The correct answer is No: The patients all had a clinical diagnosis of short bowel syndrome, and there is no mention of abdominal pain or appendicitis as a possible diagnosis.

Q4. The correct answer is No: This study is looks at a possible complication of appendectomy (appendicitis treatment).

PMID 24871698

The use of magnetic resonance imaging in the diagnosis of suspected appendicitis in pregnancy: shortened length of stay without increase in hospital charges.

IMPORTANCE: Making an accurate diagnosis of appendicitis in pregnancy is critical for maternal and fetal outcomes.

OBJECTIVE: To determine whether magnetic resonance (MR) imaging in pregnant patients with suspected appendicitis improves outcomes, minimizes length of stay (LOS), and lowers hospital charges.

DESIGN, SETTING, AND PARTICIPANTS: Retrospective review at a university tertiary referral center of all pregnant patients seen with abdominal pain and suspected appendicitis who were followed up through delivery during an 11-year period.

MAIN OUTCOMES AND MEASURES: Time to operation, LOS, complications, nontherapeutic exploration, fetal outcomes, and hospital charges.

RESULTS: Seventy-nine patients were included in this study, 34 of whom had pathology-confirmed appendicitis. Thirty-one patients underwent MR imaging. A trend toward fewer operations (odds ratio [OR], 0.45; 95% CI, 0.18-1.16; P = .07) was observed in the MR imaging group. Seven nontherapeutic explorations were performed in the non-MR imaging group and 1 nontherapeutic exploration in the MR imaging group (OR, 0.44; 95% CI, 0.08-2.32; P = .13). Patients in the MR imaging group were more frequently discharged from the emergency department (OR, 0.35; 95% CI, 0.13-0.94; P = .04) and had shorter LOS (33.7 vs 64.8 hours, P < .001). Gestational age, time to operation, and the presence of perforated appendicitis were similar between groups. No patient discharged without operation returned with appendicitis in either group. On multivariable analysis, the receipt of MR imaging (P < .001) and the absence of operative intervention (P = .001) were associated with shorter LOS. The mean hospital charges were similar in those with vs without appendicitis. One fetal loss occurred in the non-MR imaging group.

CONCLUSIONS AND RELEVANCE: Magnetic resonance imaging in pregnant patients with suspected appendicitis does not affect clinical outcomes or hospital charges. It allows safe discharge from the emergency department and improves resource use.

Q1 The correct answer is Yes: It is a retrospective review of pregnant patients over an 11-year period.

Q2. The correct answer is 79: The abstract states: “Seventy-nine patients were included in this study . . .”

Q3. The correct answer is Yes: The abstract states that the study includes “all pregnant patients seen with abdominal pain and suspected appendicitis. . .”

Q4. The correct answer is Yes: This study is looks at MR imaging, a common diagnostic modality for appendicitis.

PMID 24379631

Alvarado, Eskelinen, Ohhmann and Raja Isteri Pengiran Anak Saleha Appendicitis scores for diagnosis of acute appendicitis.

AIM: To assess the reliability and practical applicability of the widely used Alvarado, Eskelinen, Ohhmann and Raja Isteri Pengiran Anak Saleha Appendicitis (RIPASA) scoring systems in patients with suspected acute appendicitis.

METHODS: Patients admitted to our tertiary center due to suspected acute appendicitis constituted the study group. Patients were divided into two groups. appendicitis group (Group A) consisted of patients who underwent appendectomy and were histopathologically diagnosed with acute appendicitis, and non-appendicitis group (Group N-A) consisted of patients who underwent negative appendectomy and were diagnosed with pathologies other than appendicitis and patients that were followed non-operatively. The operative findings for the patients, the additional analyses from follow up of the patients and the results of those analyses were recorded using the follow-up forms.

RESULTS: One hundred and thirteen patients with suspected acute appendicitis were included in the study. Of the 113 patients (62 males, 51 females), the mean age was 30.2 +/- 10.1 (range 18-67) years. Of the 113 patients, 94 patients underwent surgery, while the rest were followed non-operatively. Of the 94 patients, 77 patients were histopathologically diagnosed with acute appendicitis. Our study showed a sensitivity level of 81% for the Alvarado system when a cut-off value of 6.5 was used, a sensitivity level of 83.1% for the Ohmann system when a cut-off value of 13.75 was used, a sensitivity level of 80.5% for the Eskelinen system when a cut-off value of 63.72 was used, and a sensitivity level of 83.1% for the RIPASA system when a cut-off value of 10.25 was used.

CONCLUSION: The Ohmann and RIPASA scoring systems had the highest specificity for the diagnosis of acute appendicitis.

Q1 The correct answer is Yes: It is an evaluation of a scoring system in patients.

Q2. The correct answer is 113: The abstract states: “One hundred and thirteen patients with suspected acute appendicitis were included in the study.”

Q3. The correct answer is Yes: The abstract states: “Patients admitted to our tertiary center due to suspected acute appendicitis constituted the study group.”

Q4. The correct answer is Yes: This study is evaluating three scoring systems for the diagnosis of acute appendicitis.