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Laparoscopic plication of diastasis recti with prosthetic reinforcement by Venetian blinds technique: 15 years experience

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Introduction: Rectus abdominis diastasis is a term used to define the split between the two rectus abdominis muscles and can be measured as the inter-recti distance. Surgery for diastasis is still controversial. We are presenting our experience of last 15 years of laparoscopic plication for diastasis recti by using 'Venetian blinds' technique.

Materials and Methods: A total of 33 patients underwent laparoscopic plication by 'Venetian blinds' technique of diastasis recti with prosthetic reinforcement. Patients with previous abdominal surgery were excluded. The common indications were cosmesis and discomfort while performing normal activities.

Results: The mean body mass index (BMI) was 29 kg/m2. The mean preoperative inter-recti distance as determined by CT scan was 11 cm. All obese patients had more inter-recti distance. The mean operating time was 113 min. Minor complications were present in 7 patients. 2 patients had chronic pain. After 6-month follow up all patients inter-recti distance on CT scan is almost zero. There is no recurrence at 2 years of median follow up.

Discussion: Even though there is still controversy regarding the surgical management of diastasis of the recti, from our past 15years experience of laparoscopic repair of diastasis of recti, we believe that laparoscopic plication can be the indicated on background of symptoms and cosmesis, with all of the benefits of minimal access surgery. Adding prosthesis will provide strength to abdominal musculature and also prevent future abdominal wall hernia.

Keywords: Diastasis recti, Laparoscopic plication, inter-recti distance.

AS33-4

Managing Diastasis Recti Laparoscopically is an ideal solution

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Introduction: Rectus abdominis diastasis (or diastasis recti) Is mainly an acquired condition with clinically evident separation of the rectus abdominal muscle pillars. It occurs principally in newborns and pregnant women. There is no associated morbidity or mortality with this condition except for cosmeticdisfigurement.

Case Series: We present twenty patients, all female, presented with a bulging of the abdomen in the midline.All were multiparous in the range of 35 45 years. There was no history of previous operation.

Methods & Materials: There was no history of chronic cough and ascites in any patient. On examination in standing position midline bulge was seen. Under general anesthesia through a three port approach laparoscopically, camera port (11 mm) in epigastrium right to the falciform ligament, two working port (6 mm) in right and left hypochondrium on anterior axillary line, linea alba was plicated in the midline after taking intracorporeal horizontal continuous sutures using ethilon double loop sutures 2-3 cm on either side of midline through the separated rectus sheath all along the defect from suprapubic area till 5-6 cm above umbilicus tightened by red ucing the intraperitoneal pressure to 8mmhg. Then a tissue separating mesh, was used to reinforce the plication by placing over the plicated length.

Conclusion: Laparoscopic plication of diastatis recti and placement of prosthetic mesh is very promising, safe & ideal operation for diastasis recti and could be the future for treatment of the same.

AS34-1

External hernia of the supravesical fossa: portrait of a misidentified protrusion

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Background: Protrusions of the supravesical fossa are considered rare, maybe erroneously. Probably, being misidentified with direct hernias, they are not listed in existing classifications. Underlining its characteristics helps early diagnosis, thus reducing risks of complications.

Methods: 100 consecutive open anterior inguinal hernia repairs consecutively carried out were analyzed. The Nyhus classification was used to categorize the protrusions detected in the cohort of patients. True hernias of the supravesicalis fossa were considered a subgroup of direct hernias. Combined protrusions (direct + fossa supravesicalis hernia) were also taken into account.

Results: 5 true hernias of the supravesicalis fossa and 7 bi-component combined hernias (direct hernia together with hernia of the supravesical fossa) were detected. All protrusions of the supravesicalis fossa presented diverticular outline with tightened basis. In two patients, the stricture was so tight as to provoke incarceration. In two other patients with bicomponent combined protrusion, the herniated element of the supravesical fossa revealed incarceration of the visceral content.

Conclusions: External hernias of the supravesical fossa seem to be more frequent than imagined. Indeed the incidence of these hernia types, both in the uncombined and combined version, is above 10%. The diverticular shape of these protrusions together with the stricture at its base, seems to explain the high trend to incarceration affecting this hernia type. Consequently, if a mid-sized protrusion with pain and/or irreducibility is present, the occurrence of a hernia of the supravesicalis fossa should be taken into account. In these cases, the indication for urgent surgical treatment is recommended.

AS34-2

Laparoscopic Transabdominal Preperitoneal Repair for Supravesical Hernia in Adult: A single center experience

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Introduction: Supravesical hernia (SVH) is a rare subtype of internal inguinal hernia. The purpose of this study is to report the characteristics of SVH and the outcomes of transabdominal preperitoneal (TAPP) repair
Methods: TAPP repair had been performed on 27 patients from July 2015 to July 2016. All patients underwent a defect wall repair using intracorporeal suture. A mesh (6x6 cm2) was applied to the repair site without covering the whole area of direct or indirect hernia. Demographic information and operative outcomes such as operation times were analyzed.
Results: All patients were male and had external SVH. The mean age was 55±11.5 years (range 3478). Protrusion was most common symptom but groin pain (11.1%) and urinary symptom (7.4%) were also observed. SVH were more common on the right (55.6%) but bilateral SVH also occurred in 1case. SVH was associated with the following comorbidities: 10 contralateral direct hernias, 1 contralateral indirect hernia and 6 lipomas. The mean operation time was 31.0 ± 9.53 minutes (range 15-60). The mean postoperative hospital stay was 15.3 ± 20.1 hour (range 2 -96). There was 1 case (wound hematoma) of postoperative complication.
Conclusion: SVH shares common symptoms with direct inguinal hernia but we were able to identify the exact location of defect by the TAPP procedure. And TAPP repair with intracorporeal suturing can safely treat SVH. The use of smaller mesh has its benefits of reducing pain and complications but long-term study is required to monitor recurrences.

AS34-3

Obturator Hernia in the elderly: A hidden tragedy! Report of 2 cases

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Introduction: Obturator hernia is a rare hernia, with a reported incidence of 0.2% to 0.9% from autopsies. Small bowel, especially the ileum, protrudes into the obturator canal and can remain incarcerated there. The cardinal symptom is obturator neuralgia which can lead to a misdiagnosis, especially because it happens mostly in the elderly women. This inevitably causes a delay in treatment which leads to dire consequences.
Methods: Two cases of obturator hernia in the elderly are being described with small bowel resection and end-to-end anastomosis following intestinal decompression. Both hernia defects were repaired with ULTRAPRO Hernia System (UHS) mesh.
Conclusion: Obturator hernia is an extremely rare hernia which has the probability of misdiagnosis as high as 90%. Early correct diagnosis of the disease is the essence of effective treatment. CT scan greatly assists its diagnosis and guides the surgeon to choose the proper management.

AS34-4

Bowel obstruction secondary to incarcerated obturator hernia

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Background: Obturator hernia is rare type of abdominal hernia and its diagnosis usually is made intraoperatively for bowel obstruction or CT scans of abdomen.
Objective: The aim of this study was to review patient's records with respect to clinical manifestation, CT scan findings, and operative outcomes.
Patients and methods: From April 2009 to January 2015, six female patients with incarcerated obturator hernia underwent urgent operation for acute intestinal obstruction. The medical records were reviewed with respect to clinical manifestation, findings of CT scan and the outcomes of operation.
Results: The median age of patients was 83 years (range: 79-87 years) and the body mass index was 21.61±0.52kg/m^2. CT scans of abdomen demonstrated that intestinal obstruction secondary to obturator hernia, consistency with operative findings. Partial bowel resection was performed in 2 of 6 patients because of necrosis of incarcerated obturator hernia. Hernia was repaired with interrupted sutures. Lung infection occurred in one patient, and wound infection in another patient. One recurrence was observed and two patients died from the unrelated diseases during the period of follow up.
Conclusions: The diagnosis of obturator hernia can be made by CT scan preoperatively, and the obturator should be suspected while an unexplained bowel obstruction in elderly, thin ladies occurs.