AS32-6

Report of 41 cases of round ligament varicosities that easily misdiagnosed as inguinal hernia

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Purpose: To investigate the differential diagnosis with inquinal hernia and clinical management of round ligament varicosities (RLV).

Methods: Retrospectively analyzed clinical materials of 41 cases of RLV diagnosed by coloured Doppler ultrasound in our hospital during January 2011 to December 2015. Newly diagnosed Department, rate of misdiagnosis, clinical and sonographic features, management after diagnosis and prognosis were recorded.

Results: All of the 41 cases were pregnant female with average age of about 34.5 years old. 28 cases were firstly misdiagnosed as inguinal hernia (68.3%). 30 cases complained of mass in the inguinal area (73.2%), 25 cases swelling pain as well as mass (61.0%), and 4 cases swelling pain without mass (9.7%). 7 cases were diagnosed during routing pregnant examination of ultrasound without any complaints (17.1%). All cases were justified a wait-and-see policy. 37 cases were followed until 3-6 months after delivery (follow-up rate was 90.2%). Mass or swelling pain disappeared spontaneously postpartum in all cases.

Conclusions: Most of the RLVs are seen in pregnant female and easily misdiagnosed as inguinal hernia. Colored Doppler ultrasound of the inquinal area is the best examination to make a collect diagnosis. It recommended to manage conservatively after diagnosis.

AS33-1

Should we repair Diastasis Recti?

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Diastasis recti describes a condition in which the two rectus abdominis muscles are separated by an abnormally wide distance. Usual causes of diastasis recti are multifetal pregnancy and obesity. Diastasis recti was classified by Nahas; Type A; Patients have a classic rectus diastasis caused by pregnancy and a well-defined waistline. Type B: who present rectus diastasis secondary to pregnancy and do not have adequate tension of the lateral and infraumbilical areas of the myoaponeurotic layer. Type C; Patients present a congenital lateral insertion of the rectus abdominis muscles at the costal margins Type D; Patients with rectus diastasis and poor waistline definition are included in this group. Between Feb 2005 July 2007, 12 cases of diastasis recti repair was done. All patients were female. Median age was 35 years old (30-43). Median of Body Mass Index was 23.6 (17.9-36.1). Average operation time was 129 minutes (80-210). All patients stated they found abdominal bulging after delivery. Seven patients had one delivery history and 6 patients had two delivery histories. One patient had three delivery histories. Two patients had twin delivery history. Open repairs were 2 cases of sublay mesh techniques (retrorectal), 2 cases of open repair with abdominoplasty and 1 case of open repair with abdominal subcutaneous flap. Laparoscopic repairs were 4 cases of IPOM (intraperitoneal onlay mesh) technique and 4 cases of IPOM and linea alba closure with transfascial fixation device. Complaints of patient are the most important factors for decision making of diastasis recti repair.

AS33-2

Midline reconstruction strategies in diastasis recti

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Abdominal wall weakness from diastasis recti is extremely common in general populations, especially amongst women after childbirth. Traditionally, the surgical approach has been to avoid surgery, or in some cases to refer them for abdominoplasty. While laparoscopic techniques have been described for midline reconstruction, they involve intraperitoneal implantation of large pieces of synthetic mesh, with its potential complications. The authors describe the various techniques of midline reconstruction in this condition, and this is directly applicable in ventral hernia repairs as well. These techniques include: double layer suture plication, plication with bariatric surgery in the obese, e-TEP Rives-Stoppa repair, and subcutaneous endoscopic midline plication with onlay mesh repair.

AS33-3

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 cosmetic disfigurement.

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.