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AMYAND'S HERNIA: A REPORT OF TWO CASES

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Inguinal hernia is one of the most common operations in general surgical practice. During hernia repair the surgeon may encounter in hernia sac unusual contents such as appendix which can be partly or completely introduced into the hernia sac. Sometimes appendix can be inflamed or adhered with the walls of sac. The presence of appendix in inguinal hernia sac is very rare and is known as Amyand's hernia.

Objective: to present two cases of Amyand's hernia encountered in our practice.

Matherial: two patients aged 38 and 62 year were admitted in our clinic because of right side incarcerated inguinal hernia. Laboratory , ultrasonography and abdominal radiography was performed in both patients.

Results: In the Operating Room, was made an incision to expose a large hernia sac. In one patient a incarcerated and inflamed appendix was detected. Appendectomy was performed through the hernia sac and after that the sac was ligated and inguinal hernia was repaired through modified Bassini's hernia technique. In the second case after opening of the hernia sac a long incarcerated appendix with no signs of inflammation was found. Appendix was adhered to the wall of the inguinal sac, pulling the cecum up near to the internal inguinal orifice. Simultaneous appendectomy was performed whereas hernia was repaired using Lichtenstein hernioplasty technique with prolene mesh. The patient's postoperative course was unremarkable.

Conclusion : Amyand's hernia is a very rare form of inguinal hernias therefore that can be easily misdiagnosed for a strangulated inguinal hernia. This form of hernia can be life threatening and the patients always require emergency surgery.

Key words: Amyand's hernia, appendectomy, hernioplasty

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An Amyand's hernia is a condition where the appendix is introduced into inguinal hernial sac. The incidence of appendix within the hernial sac varies from 0.5% to 1%, while Amyand's Hernia is complicated by acute appendicitis in 0.05% of cases. Pre -operative diagnosis is nearly impossible and is largely based on clinical suspicion, this is the reason why most Amyand's hernia's are discovered intra-operatively.
The appendix has also been found in obturator, umbilical and incisional hernias.

Objective: to present two cases of Amyand's hernia from our practice.

Matherial: two patients aged 38 and 62 year were admitted in our clinic because of right side incarcerated inguinal hernia. Laboratory , ultrasonography and abdominal radiography was performed before operation in both patients.

Case report 1
A 62 years old male was admitted in our surgery department with a three year history of a large right inguinal hernia. The right inguinal hernia was asymptomatic and had progressively enlarged over time. The patient denied any changes in bowel habits or history of intestinal obstruction.
On physical examination after admission , his abdomen was soft, non-tender and non-distended. During a right sided inguinal examination a tender, reducible mass without scrotal involvement was significant. Upon admission, biochemical analysis as well as

radiographic and abdominal ultrasonography examinations was performed.
During surgery the inguinal canal was approached with a right-sided horizontal incision perpendicular to the inguinal ligament. Subcutaneous tissue
together with Scarpa's fascia was divided until aponeurotic fibers of
the external oblique were visualized. After dividing the external
oblique to the superficial inguinal ring, the hernia sac contents protrude. After that the sac was opened and the cecum with appendix were found partially attached for the wall of the hernia sac. There were no inflammatory changes of the appendix or cecum. The appendectomy was performed and after that using blunt dissection the cecum was dissected by the hernia wall and was introduced into the abdominal cavity. The hernia sac lateral to the inferior epigastric vessels was dissected from the spermatic cord until to the deep inguinal ring. The hernia sac was excised and the peritoneum was ligated. We performed hernioplasty using a tension-free polypropylene mesh repair method. The patient was discharged three day after surgery. He returned for control in our clinic periodically during two years with no any complications.

Case 2

A 38 years old man presented in our department with a long history of right
sided inguinal mass irreducible for the last two day. During admission in our hospital he was subfebril with abdominal distention and pain localized in the RLQ A large tender swelling was visualized in the right groin, whereas the skin showed clear signs of inflammation. The white blood count was 14.9 x 10
/L with 81% neutrophils. The diagnosis of right sided obstructed inguinal hernia was confirmed by ultrasonography examination and before surgery 1 g cefuroxime was given intravenously. The operation was performed through general anesthesia and the right horizontal inguinal incision was made. External ring was divided, dissection was proceeded from downwards to obliquely upwards towards the internal ring. Fibrous bands at external and internal rings were released, and the hernia sac was opened in the middle. Phlegmonos appendix closely adherent to the caecum and small intestine was sprout out, however, no pus was seen and the appendix had not yet perforated. By meticulous dissection the appendix was released and the appendectomy was performed. Cord structures were separated from the hernia sac, followed by excision of the sac and ligation of the peritoneum. Due to the risk of infection the idea to perform a hernioplasty by implanting a mesh graft was aborted, and a Shouldice repair technique was used after copious lavage of the inguinal canal.
Postoperative course was uncomplicated, and the wound healed well. The patient was discharged for days after admission to the hospital. Sutures were removed on 7th p.o.d with advice to returne to clinic periodically during two years to watch for recurrence.

Discusion

Inguinal hernia is an abnormal protrusion of abdominal content through the inguinal canal whereas the term Amyand's hernia refers to presence of appendix within inguinal hernia sac.

Claudius Amyand was a French surgeon of British King George II who in 1735 successfully performed and recorded the repair of an inguinal hernia the vermiform appendix in an 11-year-old patient. He had first performed a transherniotomy appendectomy. In honor of him , the presence of the vermiform appendix in a hernia sac is called an 'Amyand's hernia[1].
The incidence of Amyand's Hernia is less than 1% occurring most often in male patients, whereas only 0.1 % of inguinal hernias has an inflamed appendix[2]. The acute appendicitis is a result of either primary inflammation of the appendix inside a hernia sac causing edema of the internal inguinal ring or due to the incarceration of a normal appendix by abdominal wall musculature. They are usually located on the right side because of the location of the appendix. The ethiology of Amyand hernia is unknown but sometimes a mobile caecum can be a cause of this hernias[7].
Usually the diagnosis of Amyand's hernia is difficult to be made pre-operatively , therefore the diagnosis is made after opening the hernia sac. Sometimes Computed Tomography[3, 8, 9] (CT) of the abdomen may be helpful to set
the correct diagnosis before surgery, but ususally is not advisable to subject the patient to CT scan when the diagnosis of a complicated hernia is clear by physical examination. Choice of surgical management in Amyand's hernia is usually determined according to the condition of the appendix. Sometimes the presence of a normal appendix in e hernia sac does not require appendicectomy, whereas in case of acute appendicitis the appendicectomy is obligatory to be performed, followed by herniotomy and inguinal canal repair. Prosthetic hernioplasty should not be used in the repair of contaminated inguinal canal (after phlegmonose appendicitis) because it can result in surgical site infection and possibly of increased recurrence rate[4, 5].
Post operative follow up of patients with Amyand's hernia with phlegmonos appendicitis is obligatory for a period of two years because of more incidences of recurrence.

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Conclusion: Amyand's hernias are a rare occurrences, with large variety in their presentations and managements. Preoperatively Amyand's hernia can not be diagnosed easily. Choice of operation is appendectomy if ther is inflammation, followed by herniotomy and inguinal canal repair. Post operative follow up is mandatory for a period of two years because of more incidences of recurrence

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