Case report

Amyand's Hernia: A Case Report with Review of Literatures

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Abstract
An inguinal hernia containing appendix is termed an Amyand's hernia. It is an uncommon and rare condition estimated to be found in approximately 1% of adult inguinal hernia repairs. Depending on the extent of inflammation in the hernia sac and obstruction of hernia, clinical presentation can vary. We report a case of Amyand's hernia in a 23-year old male who presented with history of right inguinal hernia for 6 months duration. Operation revealed hernia sac containing inflamed appendix hence appendectomy was performed. The peritoneum was irrigated and closed. The indirect defect of the hernia was closed primarily without mesh placement. The postoperative course was uneventful. Emphasis is made to the rarity of the disease with the review of the literature.

Key Words
Amyand hernia, appendicitis, inguinal hernia.

Introduction
Claudius Amyand, sergeant surgeon to King George I successfully removed an acutely inflamed appendix from the hernia sac of a boy in 1736(1). The finding of appendicitis in the inguinal hernia in adult is extremely rare. We report a case of amyand hernia and discuss the rarity of the disease.

Case Report
A 23-year old male from Udaypur attended the general surgery department of Bir hospital with complaints of swelling over the right groin for 6 months associated with pain. Swelling was reducible on lying down but gradually increasing in size. General examination was normal. Local examination revealed swelling over right inguinal region which was 7 cm in size, soft, mild tender, reducible and cough impulse was present. Routine laboratory investigation showed Haemoglobin 16 gm%, total count 9300 with neutrophils 74% and lymphocytes 36%, Glucose random 82mg%, urea 35mg% and creatinine 0.7mg%. The diagnosis of right reducible simple indirect inguinal hernia was made and the patient was scheduled for surgery as day care procedure. Surgery was planned as mesh repair of right inguinal hernia under local anesthesia. Right inguinal incision about 5cm was made and inguinal canal was opened. After opening the hernial sac, an inflamed appendix adhered to the hernia sac was identified. Appendicectomy was performed without need for further anaesthesia and the peritoneum was irrigated and herniotomy was done. Repair of posterior wall of the inguinal canal was done with tension-free polypropylene darning. No drainage was kept. Patient was admitted in hospital for 2 days post operation. The postoperative course was uneventful.

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Histopathology report of specimen revealed acute appendicitis.

Fig. 1: Hernial sac containing inflamed appendix

Fig. 2: Resected appendix showing faecolith in the lumen at the tip

Discussion
An appendix within an inguinal hernia is estimated to be found in approximately 1% of adult inguinal hernia repairs. The finding of appendicitis in the inguinal hernia is further rare. D’Alia observed once (0.08%) in 1,341 inguinal hernia operations while Ryan reported only 11 cases of appendicitis out of 8,692 (0.13%) external hernia sacs

Although little is known about the pathophysiology of amyand hernia, it is thought that when the appendix enters the sac it becomes vulnerable to trauma and is ultimately retained there by adhesions and inflammation ensues due to poor blood supply. Contraction of the abdominal muscles may cause compression of the appendix resulting in further inflammation.

It is extremely difficult to diagnose the condition preoperatively. Only one case has been reported to be the correct diagnosis preoperatively in 60 cases of Amyand’s hernias. Clinical features may reveal only tender hernia with or without obstruction or radiological signs, though features of typical of appendicitis with periumbilical pain shifting to the right iliac fossa or to hernia sac may be present. Pain of strangulated appendicitis tends to be episodic and crampy. Leukocytosis and fever are not consistent and reliable findings, as we noticed also in our case where the leukocytes were normal and there was no fever. Radiological diagnosis is not routinely employed in such cases; however, preoperative computed tomography (CT) examinations revealed Amyand’s hernia in some reports.

The treatment for hernial appendicitis includes appendectomy with primary hernia repair using the same incision. With due respect to contamination, use of synthetic mesh is not recommended because the prosthetic material can increase the inflammatory response and result in wound infection and a possible appendiceal stump fistula. Laparotomy may be needed in problems of releasing the appendix in the deep inguinal ring. Laparoscopic treatment has also been proposed as well. Orchidectomy has been advised by some authors considering the inflamed the sac and testicle being source of post operative sepsis especially in older patients.
Conclusion
Amyand's hernia is rare clinical entity and appendicitis within hernial sac is difficult to diagnose clinically. Diagnosis is usually made at surgery and proper treatment should be appendectomy through the herniotomy with primary hernia repair without the use of any synthetic mesh.

References