SLIDING AMYAND’S HERNIA
SHAMAILA AYUB KHAN¹, KHALID AHSAN MALIK²

ABSTRACT
Amyand’s hernia is defined as appendix inside the inguinal hernia sac. It is a rare pathology and literature present over it comprises of case reports or small case series. Diagnosis is difficult and mostly made intraoperatively after opening of the hernial sac, and treatment relies upon the condition of appendix. In this report we share our experience of a case where the caecum and inflamed vermiform appendix were part of boundary of the sac, thus leading us to name it a sliding amyand’s hernia.

KEYWORDS: Amyand’s hernia; Hernia, Inguinal; Appendicitis; Appendectomy

INTRODUCTION
Amyand’s hernia is presence of appendix inside hernia sac and it is an infrequent pathology first time discovered by Claudius Amyand in 1735 in an 11 year old boy. This was also the one of the initial descriptions of appendectomy procedures in literature¹. Presentation varies from a painless inguinal swelling to inflammation and intestinal obstruction. A very high clinical suspicion is mandatory to make a diagnosis preoperatively and majority of times the diagnosis is clear only when the sac is opened. A lot of case reports and case series are part of literature where different surgeons shared their experiences and course of action. The presented case is unique in the sense that the appendix was inflamed and the caecum was forming a part of the hernial sac and hence named as sliding amyand’s hernia.

CASE REPORT
25 year old male presented to accident and emergency department with vomiting and painful swelling in the right inguinal region. History clarified that the swelling had been present for the last 7 months but was painless and reducible. Examination revealed a 7 x 5 cm swelling in the right inguinal region which was irreducible and tender to palpation. A Clinical diagnosis of obstructed inguinal hernia was made and patient was prepared for emergency surgery. All investigations were normal and white cell count of 12,700/mm³ was noted. On exploration an indirect hernial sac was present. The posterior wall of the sac was made by the caecum. Contents of the sac were appendix along with a small loop of normal looking ileum (See Figure – 1). Ileum was reduced back through the deep ring and appendectomy was carried out, followed by tying the sac at deep inguinal ring by a purse string suture and a darn repair. Patient was allowed orally after 24 hours and was discharged on third post operative day. Histopathology of appendix showed inflammatory changes, reactive lymphoid hyperplasia with associated fecolith. Wound healed without any problems and patient had no recurrence of hernia till his follow up at 3 months.

TABLE – I: CASES OF AMYAND’S HERNIA REPORTED FROM PAKISTAN ⁶ ²²

<table>
<thead>
<tr>
<th>Author</th>
<th>Age</th>
<th>Side</th>
<th>Appendix</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahmed QJ et al</td>
<td>30 years</td>
<td>Right</td>
<td>Inflamed</td>
<td>Appendectomy and Bassini's Repair</td>
</tr>
<tr>
<td>Jawaid M et al</td>
<td>24 years</td>
<td>Right</td>
<td>Normal</td>
<td>Darning’s Reinforcement</td>
</tr>
<tr>
<td>Memon JM et al</td>
<td>50 years</td>
<td>Right</td>
<td>Inflamed</td>
<td>Appendectomy and Darning’s Reinforcement</td>
</tr>
<tr>
<td>Shamim M</td>
<td>27 years</td>
<td>Right</td>
<td>Normal</td>
<td>Appendectomy and Mesh Repair</td>
</tr>
<tr>
<td>Junaid J et al</td>
<td>63 years</td>
<td>Right</td>
<td>Normal</td>
<td>Appendectomy and Mesh Repair</td>
</tr>
<tr>
<td>Khatoon R et al</td>
<td>4 months</td>
<td>Right</td>
<td>Perforated</td>
<td>Appendectomy and Herniotomy</td>
</tr>
<tr>
<td>Hussain K et al</td>
<td>40 years</td>
<td>Left</td>
<td>Inflamed</td>
<td>Appendectomy and Shouldice Repair</td>
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**DISCUSSION**

Amyand's hernia is a rare finding with documented incidence of 1% in literature. An inflamed appendix in the sac is even rarer with only 0.13% incidence in most of writings whereas D’Alia C. et al reported it to be 0.08%. Search for cases of amyand’s hernia in Pakistan resulted in one case reported; three had normal appendices and three were inflamed while one was perforated (See Table - I). Various hypotheses have been put forward regarding its pathophysiology but most appropriate is once appendix descends in to the sac, it becomes vulnerable to trauma and develops adhesions with the sac and similarly is likely to become inflamed in due course of time due to trauma and decreased blood supply leading to bacterial overgrowth. A right sided inguinal hernia is more likely to contain an appendix due to the anatomical position but left sided hernias have been reported as well with possible causes being reported as situs inversus, mobile caecum, malrotation of intestine and excessively long appendix.

To best of our knowledge only three cases have been reported where pre-operative diagnosis of amyand’s hernia was made. Clinical findings are same as enterocoele or omentocoele with the sac either reducible or incarcerated or inflamed as the case may be. Ultrason is not a very helpful tool in preoperative diagnosis. Computed tomography can accurately detect the tubular appearing appendix in the sac but then again atypical signs and symptoms and a very high suspicion must be present in order to justify performing a CT scan, especially in our country where socio economic status of majority of population is low and performing a costly investigation would result in unwanted delays due to seldom availability of the facility and financial constraints.

Most of the authors described the position of appendix as being the content of the sac that was easily reducible into the abdominal cavity and Telkar S. et al used the term “Non-sliding appendiceal/amyand's hernia” in his case report for such observation. In our case the caecum constituted part of sac boundary and thus we have described it as a sliding amyand’s hernia. Prior to this case we have found only a single case report by Junaid J. in which the non inflamed appendix was making part of the sac.

Regarding the treatment of inflamed appendix, there is general consensus that transhernial appendectomy should be performed and surgical toilet if required followed by hernia repair without using mesh to decrease the risk of infection associated with it. But when discussing normal appearing appendix there are two school of thoughts; one favouring appendectomy in a view that manipulation of appendix pre and per operatively may lead to future inflammation and need of re surgery. The other group of surgeons prefer leaving normal appendix undisturbed and justify it that appendectomy may unnecessarily contaminate a clean surgery. Losonoff and Basson put forward a classification of amyand’s hernia with respect to management plan and have become more or less the standard guideline for operative procedures performed for this rare condition.

To summarize, amyand's hernia is a rare entity and diagnosis relies a high level of suspicion. Appropriate surgical management can be carried out in the light of current literature in order to provide good clinical care to the patient.

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