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Valentino appendix: A case report

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Abstract
Duodenal or peptic ulcer is a common problem though the incidence is diminishing now a days, but still it is an important problem and can become life threatening if perforation occurs. Sometimes after perforation the clinical picture in a case of duodenal or gastric perforation resembles acute appendicitis. This problem though produced by peptic ulcer of stomach or duodenum is called Valentino appendix or Valentino's syndrome. Clinically Valentino appendix mimics acute appendicitis and can confuse the surgeon. A proper history can indicate about peptic ulceration and perforation, but sometimes the appendix is removed as it shows inflammation due to coming in contact of irritant bile containing gastric fluid and contents. Nowadays the laparoscopic procedure can avoid such mishappening.

Keywords: Appendicitis, duodenum, laparoscopy, peptic ulcer, perforation, valentino appendix, Valentino's syndrome

Introduction
Acute appendicitis is one of the commonest surgical emergencies. It is a common emergency problem and usually the outcome of its treatment is good, but if neglected and perforation of appendix develops it can become serious and even life threatening. The acute appendicitis is treated with surgery, appendicectomy. Appendicitis can easily be diagnosed clinically by a surgeon but new investigation advancement such as ultrasonography and CT scan improve the diagnostic accuracy but still clinical examination by surgeon is important. Appendicectomy can be done by open method or laparoscopically. The aim of latest investigative imaging techniques and scoring systems is to diagnose appendix correctly and early so that serious complications can be avoided and negative appendicectomy incidence reduced. The incidence of negative appendicectomy should be kept low. In literature, this varies from 8-20%; the higher incidence is invariably seen in young women [1, 2]. It is the most frequent complaint for patients with acute abdominal at the emergency unit [3].
There are few uncommon disorders such as ruptured ectopic pregnancy, perforated peptic ulcer, ovarian torsion and others that might coincide with the clinical presentation of acute appendicitis [4]. Perforated duodenal peptic ulcer can lead to signs and symptoms of an acute appendicitis i.e. right iliac fossa pain and tenderness. Actually the appendix is inflamed due to collection of highly irritating bile containing fluid and contents from perforated peptic ulcer in RIF along the right paracolic gutter leading to redness of normal appendix due to irritation. This pseudoappendicitis is called as "Valentino appendix" or "Valentino's syndrome". It is named after, Rudolph Valentino, a film actor and was described after he experienced the sign and symptoms of appendicitis. He underwent an appendicectomy that did not alleviate his symptoms. He then developed overt peritonitis and multi-organ failure, which lead to his death [5].

Discussion
History and physical examination of a patient is very important. In 75% of cases a proper history and careful examination can indicate the diagnosis correctly. In Valentine appendix, it is quite appropriate as history of peptic ulcer disease (PUD) plays an important role. The patient suffering with valentine appendix will give history of peptic ulcer symptoms and probably the type of medicines he used to get relief and he may tell that pain started suddenly as a stabbing pain in epigastrium but the history and questions asked must be elaborate and careful.
In case of appendicitis also the detail history of pain can give clue. The most reliable sign of

appendicitis frequently manifests as epigastric or periumbilical pain that progresses to the RLQ [6]. Various imaging investigations such as ultrasound and CT scan are helpful but erect x-ray chest can show gas under the diaphragm which is diagnostic of perforation of the bowel. In appendicitis perforation gas under the diaphragm is usually not seen. In the context of acute appendicitis with epigastric pain, a CT scan is the suggested imaging investigation for the diagnosis of Valentino's syndrome [7]. A proposed CT scan may reveal the presence of free fluid with exudates, with features suggestive of a perforation [8, 9].

'In dealing with acute abdomen one must not forget acute appendicitis', is a common teaching, but we must also not neglect considering peptic ulcer perforation as it is also a common problem, though less than earlier. Peptic ulcer perforation associated with pain in the right iliac fossa simulates a case of acute appendicitis, which is known as Valentino's syndrome. This rare complication has very few reports in the literature world-wide; this report is the second report made in Columbia. This report has been written in accordance with SCARE guidelines criteria [10, 11]. With the advancements in the investigative techniques the perforation of duodenal or gastric ulcer are easily diagnosed and thus the incidence of Valentino of appendix is decreasing. The diagnostic laparoscopy easily and correctly diagnoses perforation of the bowel.

Perforation of an anterior duodenal ulcer allows for free communication of duodenal and gastric contents into the peritoneal cavity. These contents were collect independent portions of the peritoneum, which is often the RLQ [12].

Case Report

A 51 years old male patient was admitted in Emergency ward with severe pain in abdomen. The pain was generalized initially, but after 2 days settled in right iliac fossa. It was associated with nausea and several times vomiting. He was afebrile. The physical examination by the emergency doctor revealed soft abdomen with mild tenderness over whole of the abdomen, but right iliac fossa showed maximum tenderness. Bowel sounds were sluggish. The abdomen was mildly distended. Per rectal examination was non-tender and without any significant signs. The blood investigation showed leukocytosis of 11-300, and neutrophils were 89%. He was not anemic or icteric. Urine examination was within normal limits. A diagnosis of acute appendicitis was made.

Patient was prepared for laparoscopic appendicectomy. We have a routine plan of examination of whole abdomen on laparoscopy, from right iliac fossa to pelvis to left iliac fossa to left hypochondrium to epigastrium to right iliac fossa ending at umbilical region. Surprisingly, during laparoscopic examination a purulo-biliary fluid collection was found in right hypochondrium and around stomach in epigastrium. Another collection was found at right iliac fossa around inflamed appendix. On exploring right hypochondrium and epigastrium by separating the inflamed omentum which was adhered with fibrino-proteinous flakes to the underlying stomach, duodenum and colon, unexpectedly we found a hole with inflammation and ulceration at anterior wall of first part of duodenum just beyond the end of gastric antrum. Now the scenario was changed as the perforation of peptic ulcer at first part of duodenum was found as the culprit. The patient also gave history, pre-operatively, about "gastric trouble", "acidity", and "retrosternal & epigastric" burning for 3 years. He was taking medicines for his gastric problem off and on. Now after noticing these findings we remembered the patient's history about his peptic disease. We closed the perforation of the duodenum with a patch of omentum. The whole peritoneal cavity was irrigated with normal saline and two tube drains were inserted in peritoneal cavity, one in epigastrium and the other in right iliac fossa (Fig 1).

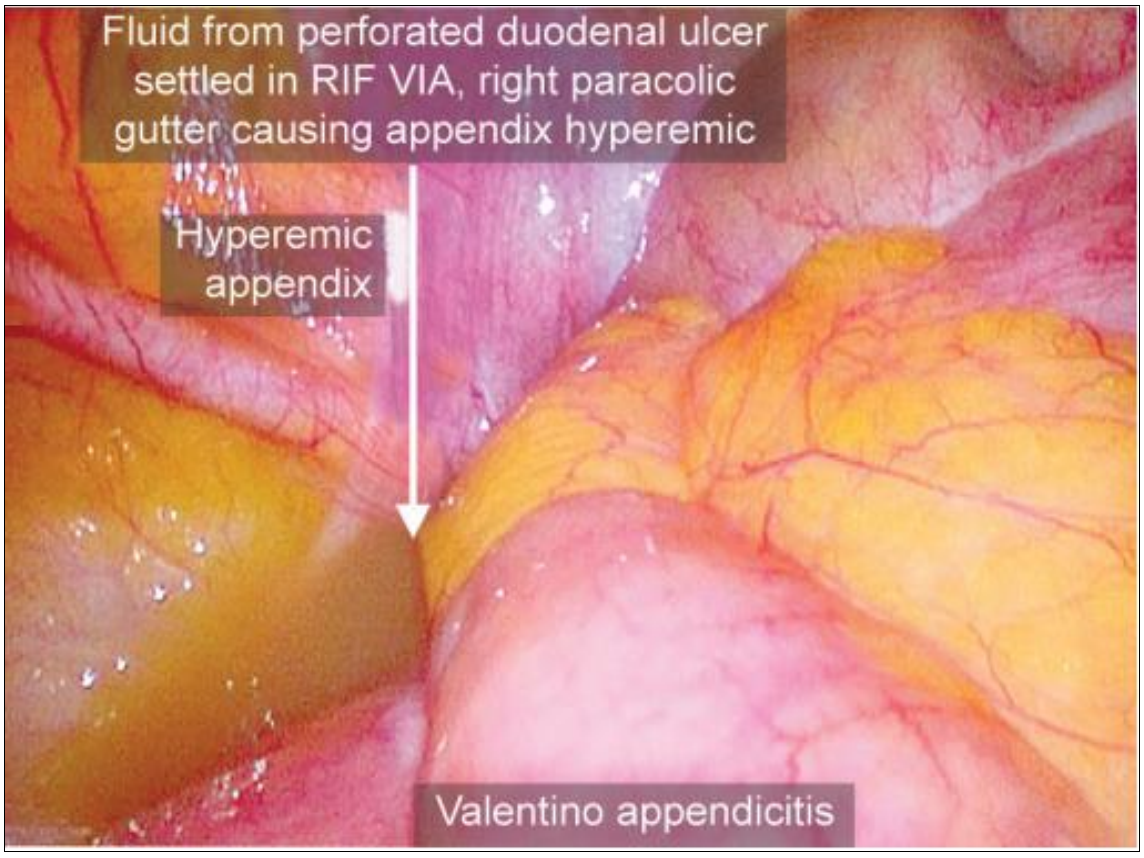

Fig 1: Valentino appendix

Patient improved after surgery and was discharged after five days of admission. The follow-up of the patient showed no post-operative complications or persistent appendicitis symptoms.

Early and accurate diagnosis with quick appendicectomy reduces the chances of it's' complications. This condition may mimic acute appendicitis or other differential diagnosis of right lower quadrant pain such as ureteric colic, diverticulitis, diverticulum rupture, ovarian torsion, ruptured ectopic pregnancy, perforated cholecystitis, pancreatitis, and pelvic inflammatory disease [13-15].

The exact incidence of Valentino's syndrome is unknown [16].

Conclusion

Valentine appendix is an important and confusing condition which may even result in unwanted appendicectomy. Though the incidence of Valentine appendix is decreasing due to advancement in imaging techniques and laparoscopic surgery, but still history of the patient's ailment is one of the most important factors to avoid it and diagnose correctly.

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Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patient understand that their names and initials will not be published and due efforts will be made to conceal their indent, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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