

## Laparoscopic appendectomy: A clue for recurrent or chronic right iliac fossa pain

Appendicitis is the most common intra-abdominal emergency. Acute appendicitis required emergency surgery, with a lifetime risk of 6%.<sup>1</sup> Appendectomy continues to be one of the commonest procedures in general surgery, accounts for approximately 1% of all surgical operation.<sup>2</sup>

Chronic right iliac fossa (RIF) abdominal pain is a common clinical condition and has been called an enigma because in many instances it defies detection by current armamentarium of diagnosis inspite of availability of advanced diagnostic methods and different medical management modalities.

Recently, recurrent or chronic right iliac fossa pain has drawn more attention because of its high incidence, especially after adoption of conservative management of early, not clearly diagnosed cases of acute appendicitis (or due to failure to confirm the diagnosis).

Patients often complain of pain in the right iliac fossa of the abdomen for months to year's duration for which various diagnostic and therapeutic interventions were carried out with no relief.<sup>3</sup> The vermiform appendix is one of the most common sites of inflammatory pathology in the abdomen. Inflammatory disorders of the appendix is that these can present with a spectrum of character and severity.<sup>1,2,3</sup>

Recurrent appendicitis refers to a pattern of symptoms with mild, self-limited attacks of right iliac fossa pain that typically last for hours before resolving spontaneously with histological evidence of appendicitis. Chronic appendicitis refers to constant well-localized right iliac fossa pain and tenderness with no other identifiable pelvic or abdominal disease.<sup>3</sup>

Chronic right lower quadrant pain still remains a significant diagnostic dilemma. In some cases, even after going through many investigations, it does not reveal the causes of pain. It needs multi-disciplinary approach for diagnosis and treatment.<sup>11</sup>

Chronic RIF pain is a common clinical entity and continues to remain a diagnostic and therapeutic problem. Sometimes chronic or recurrent appendicitis may cause persistent or recurrent pain in the right lower quadrant of abdomen, Such pain cannot be ruled by imaging methods, and based on results from present study it was proved that cases presenting with chronic right lower quadrant pain when no other etiology was found can be relieved by performing diagnostic laparoscopy and elective laparoscopic appendectomy.<sup>3,11</sup>

The accurate positive diagnosis of appendicitis cannot be defined just by traditional parameters such as tachycardia, rebound tenderness, leukocytosis, the Alvarado scoring system, ultrasonogram (USG), or even by computerized tomography (CT) of the abdomen.<sup>3</sup> Hitherto, the only well-recognized form of inflammation of the appendix is the acute appendicitis.<sup>6</sup>

Even though it is widely accepted that the diagnosis of acute appendicitis is largely clinical, the low confidence level for this particular diagnosis for any given clinician has led to unnecessary dependence on investigative modalities such as USG or CT scan, a state which has led to a huge percentage of under-diagnosis and under-treatment, there by constituting an unacceptable level of morbidity in patients suffering from RIF pain.

The recurrence rate in suboptimally treated (by intervention other than surgical) appendicitis is of great concern too.<sup>3</sup> There is a divergence of opinion regarding the clinical entity of chronic appendicitis, as a cause of recurrent pain in the right iliac fossa. These patients may not present with the traditionally accepted clinical features of an inflamed appendix. Instead, they complain of months to years of right iliac fossa pain. They may have had multiple medical evaluations and conservative treatment in the past for this pain. The patients may describe an initial episode with no classic symptoms of acute appendicitis, for which no treatment was received or

treated conservatively. The diagnosis of chronic appendicitis can be difficult, as hematology and radiological studies are typically normal. History and physical examination and evaluation confirms the diagnosis of chronic inflammation.<sup>2,5,11</sup>

The surgeon has to know that, any inflammation can present with varying degrees of severity and character, so that, the clinical and laboratory interpretation must not be restricted by too rigid and dogmatic concepts.<sup>3</sup> As the diagnosis is often uncertain pre-operatively, so, laparoscopy can be a useful tool to allow exploration of the abdomen.<sup>7</sup>

Laparoscopic appendectomy combines the advantages of diagnosis and treatment in one procedure with least morbidity.<sup>2</sup> Moreover, patients are likely to have less post-operative pain and to be discharged from hospital and return to activities of daily living sooner than those who have undergone open appendectomy. The other advantages include decreased wound infection, better cosmetics.

If appendectomy completely relieves the pain and pathologic findings include chronic inflammation of the appendix, then the diagnosis of chronic appendicitis is confirmed.<sup>8,9</sup> Laparoscopic appendectomy performed during exploratory laparoscopy is a useful treatment for chronic or recurrent right iliac fossa pain and can also be a good diagnostic tool for other diseases, especially gynecological causes, in the abdomen.<sup>9,10</sup>

#### **Conclusion:**

We conclude that, significant reduction of pain can be achieved after laparoscopic appendectomy in all patients suffering from recurrent or chronic right iliac fossa pain.

Diagnostic laparoscopy is an invaluable tool in diagnosis and treatment of cases of recurrent or chronic right iliac fossa pain.

Although we need to send all the specimen of appendices after laparoscopic appendectomy for histopathological evaluation to confirm the diagnosis of acute appendicitis.

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