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# Laparoscopic evaluation of nonspecific vague abdominal pain

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***Abstract***---Objective: To find out if laparoscopy has any diagnostic utility for individuals with non-specific, vague abdominal discomfort. Methodology: Laparoscopies for diagnosis were performed on patients who complained of vague, nonspecific stomach discomfort. SPSS version was used to gather and evaluate the data. Three months of patient follow-up occurred in the OPD. Results: There were 50 patients listed for the study where men outnumber women by a factor of 2. Individuals were between the ages of 20 and 60, having an average age of 36.0. Umbilical pain affected more than 50% of patients, followed by lower-body discomfort in the right (25%) and left (10%) quadrants. While some individuals had abdominal TB, 30% of the patients had appendicular pathology. About 13% of individuals experienced chronic and recurrent cholecystitis, and 11% had postoperative adhesions and bands. Wound infections made up 8% of the postoperative complications of the operation, whereas RTI made

up 5%, 5 % of patients were diagnosed to have torsion of ovarian cyst, and 5 patients were diagnosed to have pelvic inflammatory disease. In 95% of the instances, a firm diagnosis was made. Conclusion: In individuals diagnosed with nonspecific vague abdominal discomfort, diagnostic laparoscopy was proven to be helpful in making a firm diagnosis.

***Keywords***---laparoscopic, abdominal pain, stomach discomfort, recurrent cholecystitis.

## Introduction

Patients frequently complain of abdominal pain when they visit the surgery department. With many cases, especially those involving acute pain, a diagnosis may be made with ease using the patient's medical history, a clinical examination, and further tests such an ultrasound or CT scan (Pearson et al., 2021). 20% of patients with acute abdominal crises will have nonspecific, vague abdominal discomfort, and these instances cannot be identified with the diagnostic tools at our disposal. A situation in which repeated discomfort occurred over a period of three to four months is referred to as chronic or recurrent nonspecific abdominal pain. Chronic recurring abdominal pain, according to one study, is discomfort that lasts more than three months (Lauterio et al., 2021). 30% of people with chronic and recurring stomach discomfort go undetected despite thorough testing. 10% of women in reproductive age who experience persistent pelvic discomfort also consult a gynecologist (Batchelor et al., 2013). There are both biological and functional problems that might cause stomach discomfort. The diagnosis of persistent, nebulous stomach discomfort is difficult and requires continuous monitoring.

With the aid of laparoscopy, a surgeon can inspect the peritoneal cavity without creating significant incisions (Agresta et al., 2008; Fogli et al., 2002). The therapy of certain surgical problems has undergone a revolution because to this contemporary method. The gold standard for many undiagnosed abdominal diseases is currently diagnostic laparoscopy. It is crucial to do a diagnostic laparoscopy and take a tissue sample for histopathology in order to determine a diagnosis and formulate a treatment strategy (Agrusa et al., 2012). It is economical and shortens hospital stays. This study's goal was to describe how a diagnostic laparoscopy for nonspecific, hazy abdominal discomfort turned out (Fogli et al., 2002).

## Methodology

The Department carried out this descriptive case series. Patients of any age and sex who reported having vague, nonspecific stomach discomfort were included. Either the emergency room or the outpatient department admitted them. These individuals had already had standard diagnostic tests includes sonogram and computed tomography scan. However, an accurate diagnosis couldn't be provided. Individuals who had intra-abdominal malignant illness and an unstable

hemodynamic status were eliminated. Informed consent and institution review board permission were obtained.

Following admission, a thorough clinical examination and history were conducted. Relevant tests included a “CBC, urine R/E, blood urea, creatinine, random blood sugar, hepatitis virology, albumin level, ECG, and chest X-ray”. Repeated abdominal X-rays and ultrasound scans were also performed. To rule out any potential causes of their nebulous abdominal pain, all of the patients had a diagnostic laparoscopy. A single 2-gram IV dosage of cefaparazone and sulbactum was administered prior to surgery. Patients were told that, if necessary, laparoscopy might be converted to open surgery. Anesthesia was used during the diagnostic laparoscopy.

During surgery, additional ports were inserted where therapeutic intervention was necessary after The recording tubes were first inserted in an open procedure via a periumbilical cut. The patients' sociodemographic information was entered into a pre-designed form together with their clinical results, investigations, laparoscopic findings, diagnoses, operating time, postoperative hospital stays, and postoperative problems. Where necessary, a biopsy specimen was obtained and sent for histology in order to confirm the diagnosis. SPSS version was used to analyse the data. The descriptive statistics including percentage, frequency, mean, etc. were computed.

**Result**

The study population consists of 50 patients. The duration of the study was from November 2022 to March 2023. There were 33.0% men and 66% women. 1:2 was the male to female ratio. The patients ranged in age from 20 to 60, with a mean age of 36.0 years. 40% of patients were admitted through the OPD, while 58% went to the emergency room. In 32.5% of patients, discomfort in the umbilical area was the typical clinical manifestation.

Table 1
Area and location of pain

| Area and location of pain | Men | Women | Total |
|---|---|---|---|
| Umbilicus | 16% | 36% | 53% |
| Right Lower quadrant | 8% | 16% | 25% |
| Left lower quadrant | 3% | 6% | 10% |
| Right upper quadrant | 3% | 5% | 8% |
| Left upper quadrant | 1% | 1% | 3% |
| Total | 33% | 66% | 100% |

Table 1 provides information on the distribution of pain in different sites among males and females. The table shows the percentage of individuals who experience pain in specific areas of the body. The site of pain categories include the umbilicus (belly button), right lower quadrant, left lower quadrant, right upper quadrant, and left upper quadrant. The table indicates that among the total population, 16% of males and 36% of females experience pain in the umbilicus,

making it the most common site of pain overall. The right lower quadrant is the second most common site, with 8% of males and 16% of females reporting pain there. The table provides similar data for the other site categories as well. The total column shows the overall distribution of pain across all sites, with 33% of males and 66% of females experiencing pain in any of the mentioned areas.

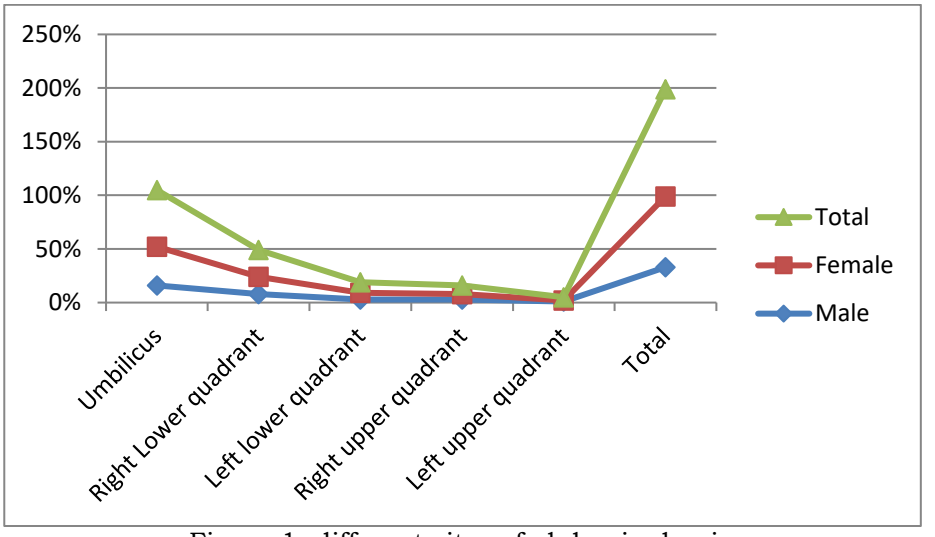


Figure 1. different sites of abdominal pain

A preoperative ultrasonography revealed dilated bowel loops in 58% of cases and moderate free fluid in the pelvic cavity in 30% of patients. Patients' non-specific persistent abdominal discomfort did not appear to be caused by acalculus cholecystitis in 5% of cases and fibrotic gall bladder with tiny stones in 8% of cases prior to the surgery. A CT scan was done in each instance, and the results showed that 20% of patients had an inflamed appendix, 60% had dilated bowel loops, 15% had mesenteric lymphadenopathy, In addition, 3% of them had pubic illness and 5% had swollen para-aortic lymphatic nodes.

Table 2
Laparoscopic Findings

| Findings | Percentage |
|---|---|
| Inflamed appendix | 22.7% |
| Appendix, small and fibrous | 8.3% |
| Mesenteric attachments involving lymphadenopathy | 10% |
| mesenteric lymphadenopathy | 8.3% |
| Stricture of the small intestine is associated with mesenteric lymphadenopathy. | 6.7% |
| Gallbladder inflammation/fibrosis | 13.3% |
| Attachments & bands of fibers after surgery | 11.7% |
| Fluid accumulation in the pelvis the chamber, cysts in the ovaries, uterine inflammation, and blocked fallopian tubes. | 5.0% |
| lymphadenopathy near the abdomial aorta | 5.0% |
| Intestinal diverticulum of Meckel | 1.7% |

| | |
|---|---|
| A stalled omentum in the inguinal canal. | 1.7% |
| Negative histopathology report | 6.6% |
| Overall | 100% |

The longest laparoscopic procedure might last 85 minutes, while the typical surgery was 45 minutes. Wound infection was one of the postoperative complications in 8.% of patients, and RTI was one in 5%. In the OPD, patients were followed up on. Ten days following surgery, one month, two months, and three months later, follow-up appointments were planned. 66% of patients went to their scheduled follow-up appointments. 33.0% of the patients were lost for follow-up. This 33.0% visited the OPD for 1-2 visits but did not finish the advised 4-visit follow-up regimen.

Table 3
Final Diagnosis

| Diagnosis | %age |
|---|---|
| An appendix infection Subacute or Recurring | 30% |
| Tb of the Abdomen | 25% |
| Cholecystitis, Chronic/Recurrent | 13.3% |
| Torsion Of Ovarian Cyst | 10% |
| Pelvic Inflammatory Disease | 10% |
| Adhesions After Surgery | 11.7% |
| Adnexal cyst with Priapism | 5% |
| Lymphoma | 5% |
| Diverticulum of Meckel | 1.7% |
| Inguinal Hernia | 1.7% |
| Negative Pathology Findings | 6.6% |
| Overall | 100% |

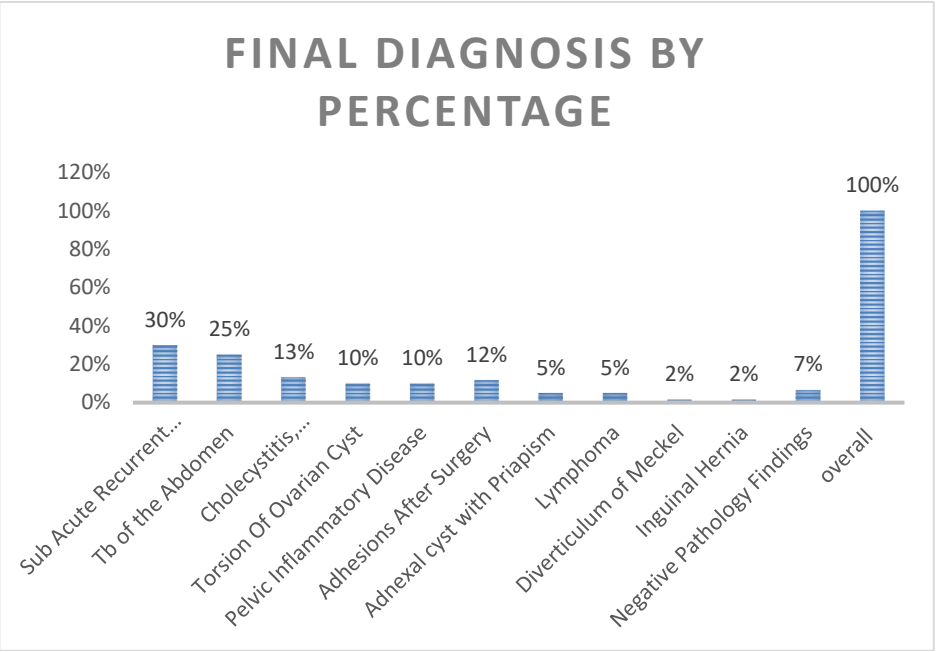


Figure 2. Final diagnosis by percentage

**Discussion**

Numerous intra-abdominal disorders are successfully diagnosed by laparoscopy. It has completely changed how intra-abdominal illnesses are managed (AYTAÇ et al., 2020; Wallach et al., 2004). Young female patients who come with lower abdomen discomfort and variable appendix it s symptoms have reported having diagnostic challenges. In this age range (Vlahos et al., 2017), diagnostic laparoscopy appears to be a superior alternative to assess the nonspecific lower abdomen discomfort (Gans et al., 2015; Hadi et al., 2022). In this study, 66% of the female patients reported vague, nonspecific stomach discomfort.

**Conclusion**

Patients who appear with nonspecific, vague, and persistent abdominal discomfort that cannot be identified by standard examinations can benefit greatly from diagnostic laparoscopy.

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