



CLINICAL PRESENTATIONS OF HEPATOBILIARY ASCARIASIS: A PROSPECTIVE STUDY.

<b>Dr. Nadeem Rashid*</b>	Senior Resident, Department of Surgery, GMC Anantnag *Corresponding Author
<b>Dr. Atif Naeem Raja</b>	Senior Resident, Department of Surgery, GMC Anantnag
<b>Dr. Bilal Ahmad Pahalwan</b>	Senior Resident, Department of Surgery, GMC Anantnag

**ABSTRACT**

**Aims and objectives:** This study was conducted in order to know various clinical presentations of hepato biliary ascariasis in adult South Kashmiri population. **Materials and Methods:** A prospective observational study was conducted to know clinical presentation of different surgical diseases including intestinal obstruction, pancreatitis and cholangitis in a tertiary centre of GMCH Anantnag. For the purpose of this study a total of 100 patients both males and females participated. Ultrasound was considered as an important diagnostic investigation. This was supported by stool examination and upper GI endoscopy in some cases. **Results:** Hepatobiliary and or pancreatic ascariasis were managed conservatively. The progress was monitored with the help of sonography. For most of the cases of Hepatobiliary or pancreatic ascariasis conservative treatment suffices mostly. However in some complicated cases surgical intervention may be indicated.

**KEYWORDS :** Ascariasis, Biliary, Sonography.

**INTRODUCTION**

Various surgical problems might happen due to the susceptibility of *Ascaris lumbricoides* to wander in the abdomen. This may sometimes reach the vermiform appendix and either remain silent or induce inflammation. Ascariasis presents commonly with a global prevalence of about 25%.<sup>1</sup> Approximately 1.4 billion people are infected worldwide with the majority of cases reported from the Indian subcontinent, China, African continent and Latin America.<sup>1</sup> Patients may be asymptomatic or present with biliary colic, cholangitis, cholecystitis, liver abscess, pancreatitis, intestinal obstruction and even perforation.<sup>3</sup>

It is very important to detect intestinal obstruction due to *A. lumbricoides* at relatively earlier stage so as to avoid its serious complications. *Ascaris lumbricoides* is infrequently seen in the vermiform appendix although they are seen in the intestines of individuals in tropical countries. Ascariis-associated appendicitis is usually the sequelae of a high intestinal worm load.<sup>2,17</sup>

The main aim of this study was to check and make record of patients with gastrointestinal and hepatobiliary ascariasis. A diverse spectrum of clinical profiles of the study participants was formulated. At the same time, treatment protocols were made in various clinical presentations in these patients who were admitted in Department of Surgery, GMC Anantnag.

**MATERIALS AND METHODS:**

This observational study was conducted at Department of Surgery, GMC Anantnag from January 2017 to January 2020. Patients presented to the hospital with hepato-pancreatobiliary and gastrointestinal ascariasis during the study period were included for the purpose of this study. An informed written consent was taken from each patient. Patients who were not willing for this study were excluded. A total of 100 adult patients participated for the purpose of this study. A detailed clinical history was taken from all the patients. A routine venous blood sample was taken from each patient for evaluation of lab parameters. These included various tests like complete blood counts, liver function tests, kidney function tests, coagulation profile, serum amylase, lipase levels and stool for parasites. Ultrasonography of whole abdomen was done in all patients irrespective of the cause as a part of diagnostic investigation. In patients with clinical presentation of intestinal obstruction an X-ray

abdomen in both erect and/or supine position was done. Upper gastrointestinal endoscopy was also done in some of the patients. Initial line of treatment was conservative management. However, in patients who did not respond to the conservative treatment surgical intervention was done after 48-72 hours of conservative management.

**RESULTS:**

A total of 100 patients were included in the study- 77 females and 23 males. Age of the patients ranged from 19 years to 70 years with a mean of 34.57 years. Majority of patients below 30 years of age.

**Table 1: Clinical presentation of the study population.**

Clinical presentation	Present	Total N=100	Percentage
Pain abdomen	92	100	92
Jaundice	22	100	22
Vomiting	60	100	60
Fever	30	100	30
Constipation	17	100	17
History of worms in stool	10	100	10
History of worms in vomitus	4	100	4

**Table 2: Diagnostic investigations in the study population**

Name if the test	Number of patients N=100	Suggestive of ascariasis	Percentage
Ultrasonography	100	97	97
Stool ova-cyst	100	91	91
Upper GI endoscopy	15	10	66.66
Raised serum amylase/lipase	100	34	34
X-ray abdomen	25	6	24

**DISCUSSION:**

The most common presentation in the present study was pain abdomen and vomiting similar to the findings by Baba et al and Mukhopadhyaya.<sup>3,4</sup> A female predominance was seen in the present study (77%), similar to findings by Mukhopadhyaya (73.80%).<sup>4</sup> A high sensitivity has been observed for ultrasonography in diagnosing biliary tree ascariasis (97%) in the present study similar to the findings by Das.<sup>8</sup>

In accordance with the previous studies it was found that

conservative management was successful in about 90% of patients.<sup>5,6, 7, 9</sup> Conservative treatment included use of medicines such as antispasmodics, antibiotics and anti-helminthics.

Since the introduction of endoscopic intervention there has been a significant reduction in morbidity and mortality of hepatobiliary ascariasis.<sup>10-15</sup> Less than 1% of patients require surgical interventions, especially when endoscopic interventions were not able to extract dead worms.<sup>10,16</sup>

#### CONCLUSION:

Gastrointestinal and hepatobiliary ascariasis amounts to a high disease burden in South Kashmir's Anantnag district. This is manifested by a huge spectrum of clinical presentations. The disease is a reflection of sanitation habits of the population. The diagnosis is based on clinical suspicion and confirmation after imaging modalities like ultrasonography. Stool examination is of significant value in diagnosis. Management is predominantly conservative and has a good prognosis. Sanitary habits should be advised to the general population and simultaneously deworming of the families is advised especially if an index case of ascariasis is found in the population.

#### REFERENCES:

1. Khuroo MS, Rather AA, Khuroo NS, Khuroo MS. (2016). Hepatobiliary and pancreatic ascariasis. *World J Gastroenterol.* 22 (33):7507-17.
2. Wani MY, Chechak BA, Reshi F, Pandita S, Rather MH, Sheikh TA, et al. (2006). Our experience of biliary ascariasis in children. *J Indian Assoc Ped Surg* 11(3):129-32.
3. Baba AA, Shera AH, Bhat MA, Hakim S, Sheikh KA, Shah OJ.(2010). Management of biliary ascariasis in children living in an endemic area. *Eur J Pediatr Surg.* 20(3):187-90.
4. Mukhopadhyay M. Biliary ascariasis in the Indian subcontinent: a study of 42 cases. (2009). *Saudi J Gastroenterol.* 15 (2):121-4.
5. Khuroo MS, Mahajan R, Zargar SA, Javid G, Sapru S. (1989). Prevalence of biliary tract disease in India: A sonographic study in adult population in Kashmir. *Gut.* 30:201-5.
6. Khuroo MS, Zargar SA. Biliary ascariasis. (1985)A common cause of biliary and pancreatic disease in an endemic area. *Gastroenterology.* 88:418-23.
7. Khuroo MS, Zargar SA, Mahajan R. Hepatobiliary and pancreatic ascariasis in India. *Lancet.*
8. Das AK. (2016). Hepatic and biliary ascariasis. *J Glob Infect Dis.* (2):65-72.
9. Gonzalez AH, Regaldo VC, Van den Ende JV. Non-invasive management of *Ascaris lumbricoides* biliary tract migration: a prospective study in 69 patients from Ecuador. (2001). *Trop Med Int Health.* 6:146-50.
10. Khuroo MS, Zargar SA, Yattoo GN, Javid G, Dar MY, Boda MI, et al. (1993). Worm extraction and biliary drainage in hepatobiliary and pancreatic ascariasis. *Gastrointest Endosc.* 39:680-5.
11. Zargar SA, Khuroo MS. Therapy of biliary ascariasis and its rationale. (1987). *Gastroenterology.* 93:668-9.
12. Al-Karawi M, Sangi FM, Yasawy MI, Mohammed AE. (1999). Biliary strictures and cholangitis secondary to ascariasis: Endoscopic management. *Gastrointest Endosc.* 50:695-7.
13. El Sheikh Mohamed AR, Al Karawi MA, Yasawy MI. (1991). Modern techniques in the diagnosis and treatment of gastrointestinal and biliary tree parasites. *Hepatogastroenterology.* 38:180-8.
14. Chen YS, Den BX, Huang BI, Xu LZ. (1986). Endoscopic diagnosis and management of ascaris induced acute pancreatitis. *Endoscopy.* 181:27-8.
15. Kamiya T, Justiniano M, Duran A, Uechi C. (2002). Biliopancreatic ascariasis: Endoscopic approach. *J Gastroenterol.* 37:97-9.
16. Sandouk F, Haffar S, Zada MM, Graham DY, Anand BS. (1997). Pancreatic-biliary ascariasis: experience of 300 cases. *Am J Gastroenterol.* 92:2264-7.
17. Misra SP, Dwivedi M, Misra V, Singh PA, Agarwal VK. (1999). Acute appendicitis caused by *Ascaris lumbricoides* is an uncommon variant of a common disease. *J Clin Ultrasound.* 27:96-7.