



## Surgical Presentations and Management of HIV Positive Patients in Rural Medical College

### KEYWORDS

(HIV, Cellulites, lymphadenopathy)

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### ABSTRACT

*This study was designed as a prospective cohort study, carried out at Government rural Medical College. The study population included 80 HIV positive cases. Aim of the study was to find out common surgical presentations and their management in HIV positive patients in rural area. We observed that Maximum cases were in the age group of 20-40 years 67 cases (83.75%). Males were predominantly affected (86.25%) as compared to females (13.75%). Male: Female ratio was 6.27:1. Out of 80 cases, 42 cases (52.50%) were managed surgically and 38 cases (47.50%) were managed conservatively. Emergency operative procedures were performed in 32 cases (40.00%) and elective operative procedures were performed in 10 cases (12.50%). Most common emergency presentation in HIV cases was Sepsis secondary to soft tissue infection and cellulites in 16 cases (50.00%). In elective setup lymphadenopathy was the most common presentation 3 cases (30.00%) among known HIV positive cases.*

### INTRODUCTION-

Twenty years since the indications for abdominal operation in the HIV patient were published, the epidemiology is now well understood and surgical involvement in the management of patients with HIV has changed remarkably. In concert with improved medical treatment, there has been a major decrease in the number of operations for HIV-related surgical illness. At the same time the surgery curriculum has undergone change to ensure surgeons are knowledgeable with regard to their much reduced, although still important, role in contemporary treatment of HIV<sup>1</sup>.

The clinical manifestations of HIV may include complications of immunosuppression that require surgical management. Occasionally, the depressed host response can obscure the presentation of otherwise non-HIV related surgical illnesses, resulting in a delayed or missed diagnosis and thus complicating management. At other times, the presence of HIV distracts the clinician into believing that the illness is part of the clinical spectrum of HIV which can perhaps delay the diagnosis of a common non-HIV related illness. In certain patients a surgical illness unique to HIV may be the first manifestation of the disease; earlier in the epidemic this infrequently had been the single event for diagnosis of HIV infection.<sup>2</sup> e.g. oral candidiasis.

The surgical experience with this disease remains limited. Increasingly, surgeons are called upon to evaluate HIV-infected patients and perform a variety of procedures both elective and emergency.

Although the need for surgical intervention in the HIV patient with abdominal complaints is low, the general surgeon will often be consulted owing to the lack of clarity in the interpretation of findings from the initial abdominal examination. Once consulted, the surgeon should determine whether the patient has a non-operative condition mimicking surgical illness or a surgical emergency. Late diagnosis and delay of surgical exploration in HIV patients have resulted in increased morbidity and mortality.<sup>3</sup>

### MATERIAL AND METHOD

The present study was conducted at rural Government Medical College as Hospital based prospective cohort study. Total 80 cases had been studied. There were 3 sources, patients referred from Anti Retroviral Therapy (ART) OPD, patients from Surgery OPD, patients referred from Private Hospitals.

In our study as the cases below 12 yrs of age were excluded, in clinical case definition we have not included definition for pediatric age group.

In adults reportable case of HIV infection must meet the following criteria: Positive results on a screening test for HIV antibody (e.g., repeatedly reactive enzyme immunoassay) followed by a positive result on a confirmatory (sensitive and more specific) test for HIV antibody (e.g., Western blot).

Selected patients were subjected to a detailed history and thorough clinical examination. Relevant investigations were done as per individual case requirement and findings were recorded in a specially designed proforma. Routine blood investigations Elisa Test and CD<sub>4</sub> T Cell Count done. Radiological Investigation X-Ray Chest, X-Abdomen – KUB, USG and CT scan done as required.

### DISCUSSION-

In present study maximum cases were seen in the age group of 20-40 years of age. Mean age of affected was 34.01 years. There was male predominance observed, out of 80 cases 69 were males and 11 were female, with male to female ratio of 6.27:1. Heterosexual Exposure was the commonest mode of transmission among these patients.<sup>5,11</sup>

In our study 42 cases i.e. 52.50% were managed surgically and 38 cases i.e. 47.50% were managed conservatively. 4,6,20 This implies that in HIV positive patients having surgical problems there is role of both conservative and surgical management, but whenever required, to avoid dreadful complications, surgical management should be done without delay<sup>10</sup>.

In our study there were 6 cases of appendicitis, 3 cases were managed conservatively with the help of antibiotics, 3 patients required operative intervention out of which 1 patient had acute gangrenous appendicitis and other 2 patients had acute non gangrenous appendicitis. All 3 patients who were managed conservatively were taking HAART (Highly Active Anti Retroviral Therapy).

The occurrence of appendicitis in patient in HAART can be due to IRIS (Immune restoration inflammatory syndrome)<sup>7</sup>. There are contradictory opinions as well; that lack of HAART may be the risk factor development of appendicitis among the HIV infected patients<sup>11</sup>. Appendicitis in HIV positive pa-

tients should be treated on the same lines as non HIV patients and when required prompt exploration and early removal of infected appendix should be done.

There were 10 cases of intestinal obstruction in our study. Out of 10, 5 patients were managed conservatively and 5 required operative intervention.

Patients who were managed conservatively had clinical and radiological features of SAIO (Sub Acute Intestinal Obstruction) involving small bowel. All 5 patients responded well to conservative management. Out of 5 patients who were operated, 3 patients had features of acute intestinal obstruction with short history of 2 -3 days but had recurrent attacks previously. On USG there were features suggestive of acute intestinal obstruction mainly of small bowel and intra-operatively diffuse mesenteric lymphadenopathy, omentalthickening, adhesions of terminal ileum and caecum were seen all strongly suggestive of abdominal tuberculosis 9. Appropriate surgical therapy and prompt initiation of anti-tuberculosis medication can successfully treat abdominal tuberculosis 16.

We had 2 patients of perforation peritonitis. Both patients presented with history of pain in epigastrium, vomiting, and analgesic abuse. Both patients had duodenal perforation intra operatively which were closed and omentoplasty was done;

post operatively both developed wound infection but responded to antibiotics and recovered. Perforation of gastrointestinal tract not related to appendicitis is also increased in HIV patients 12.

In our study all 3 patients of cholecystitis were male of age group 20-60 yrs; these differs from type of patients in general population requiring biliary procedures where higher proportion of females is observed 13

We had 3 HIV patients of who presented with acute pancreatitis and were on HAART. After going through history and course of disease it was found that all these 3 cases were most likely due to antiretroviral therapy (Didanosine, Stavudine ) as no other obvious cause was found in investigations. This proves that some noxious stimuli are needed to the pancreas for pancreatitis to occur 14. Among these noxious stimuli in HIV patients, it is the medication which forms the bulk 15.

Among 32 HIV patients presenting in emergency setup, 16 were found to have sepsis secondary to cellulitis and soft tissue infection.

Accordingly emergency debridement with incision and drainage was done with proper post operative care. Among these infections the most dreaded infection was Fournier's gangrene with advance lesions involving scrotum with gangrenous changes 8. But with extensive debridement and proper antibiotics and supportive measures, these patients survived. All patients recovered uneventfully except for the delayed wound healing due to immune-compromised status.

Cellulitis and soft tissue infection are major but under estimated complications of HIV disease 17. Out of 38 conservatively managed patients we had 2 cases admitted with renal colic referred from ART OPD and were on HAART; imaging studies showed calculus in renal calyx. Asymptomatic crystalluria or symptomatic renal stone disease is common with HIV patients treated with Indinavir which is a constituent of ART 18.

In our study we have electively operated 10 cases; 5 cases of inguinal hernia repair, 3 cases of excision lymph node biopsy, 1 case of carcinoma colon and 1 case of vesical calculus for whom suprapubiccystolithotomy was done.

In elective setup among 10 patients in our study, 3 patients had chronic cervical lymphadenopathy, these 3 patients were known cases of HIV, referred from ART OPD. Excision biopsy of each of these patients showed tuberculosis 19. Hence

patients in our study were diagnosed as TB lymphadenitis which is very common in immune compromised patients as in HIV 19.

Though there were many surgical diseases associated with HIV, the most common association was observed with cases of abscess and cellulitis 28 cases (35.00%) followed by abdominal tuberculosis 12 cases (15.00%). Hence resurgence of tuberculosis along with rising incidence of HIV suggests that we are facing a dual epidemic of Tuberculosis and HIV

## CONCLUSIONS-

From our study we conclude that there is role of both conservative and surgical management in HIV positive patients but whenever required Operative intervention should not be delayed. In emergency setup, sepsis due to cellulitis and soft tissue infection was the most common presentation. In elective setup, lymphadenopathy was the most common presentation among known HIV positive patient. Resurgence of tuberculosis along with rising incidence of HIV suggests that we are facing a dual epidemic of Tuberculosis and HIV.

## OBSERVATIONS-

fig-1

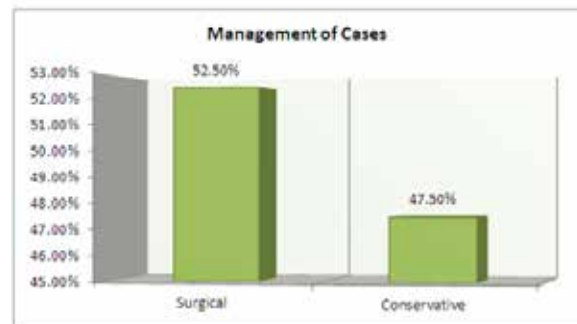


fig-2

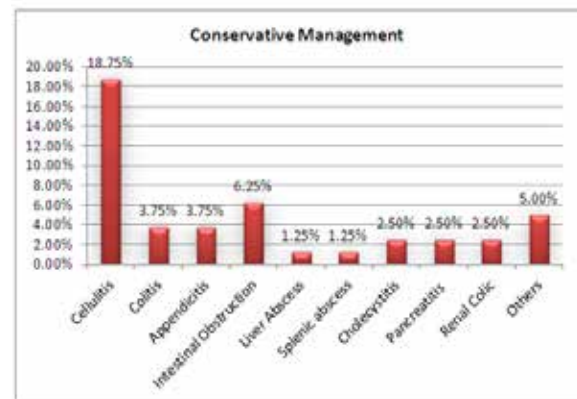


Fig.3

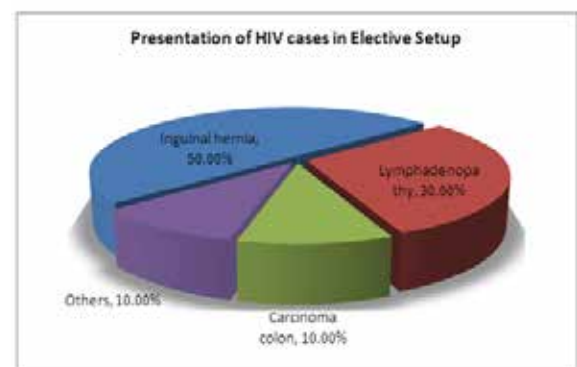


Fig- 4

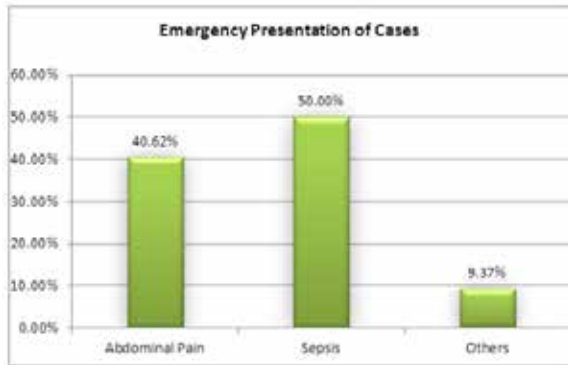
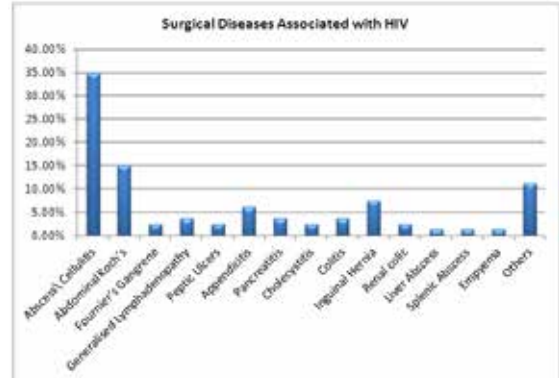


Fig-5



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