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Surgical Presentations in HIV Patients on Anti Retroviral Therapy: A Single Institution Experience

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Abstract

Background: Surgical problems in the HIV patient include not only abnormal presentation of common illnesses but also include unique problems that are consequences of the acquired immuno suppression.

Aims: 1. To study the pattern of various surgical presentations of HIV patients. 2. To know the pattern of impact of effective ART on surgical presentations.

Settings and Design: We conducted a cross sectional study on patients admitted in Surgery ward over 6 months time among the patients initiated on ART (Anti retroviral therapy) from a comprehensive HIV care centre to analyze the various conditions in HIV patients warranting surgical care and intervention.

Materials and Methods: We collected data from March 2014 to August 2014 by personal interview with the HIV infected patients who attended General Surgery, other Surgical Specialties, Obstetrics & Gynecology and Casualty departments of Medical College, Thrissur. Their details about anti retroviral treatment were collected from ART clinic in the hospital and their data regarding various surgical interventions were collected from registers in respective departments.

Results and Conclusion: We had 92 cases of surgical admissions during study period. 85 (92%) patients in this group had surgical interventions and 7 (8%) cases were managed conservatively. The conclusions of this study were effective ART increases the number of elective surgical problems in HIV patients due to their increased survival and it also shows the different types of surgical presentations in HIV patients.

Keywords: Surgical Presentations; HIV; Anti Retroviral Therapy (ART).

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Introduction

Acquired immunodeficiency syndrome is now recognized as an alarming pandemic spread all over the world. Antiretroviral therapy (ART) has transformed infection with human immuno deficiency virus (HIV) from a disease leading to rapid decline and early death in to a chronic manageable condition. Successfully treated patients have higher CD4 cell counts and lower viral loads, permitting healthier lives and longer survival [1-3]. Consequently, many HIV – infected patients are undergoing surgical procedures to correct physical ailments. We conducted a cross sectional study on patients admitted in Surgery ward over 6 months time among the patients initiated on ART from a comprehensive HIV care centre to analyze the various conditions in HIV patients warranting surgical care and intervention.

Method

We collected data for 6 months from March 2014 to August 2014 by personal interview with

the HIV infected patients who attended General Surgery, other Surgical Specialties, Obstetrics & Gynecology and Casualty departments of Medical College, Thrissur. Their details about anti retroviral treatment were collected from ART clinic in the hospital. We also collected their data regarding various surgical interventions from registers in General Surgery, other Surgical Specialties, Obstetrics & Gynecology and Casualty departments during the study period. We included those HIV infected patients ever initiated on anti retroviral treatment (ART) presented with surgical diseases who attended ART clinic at our institution during the study period and those patients with history of regular or irregular ART who presented with surgical diseases in General Surgery, other Surgical Specialties, Obstetrics & Gynecology and Casualty departments during the study period. We excluded those HIV infected patients with surgical diseases who were not willing to participate in the study.

Results

We had 92 cases of surgical admissions in the departments during the study period. 85(92%) patients in this group had surgical interventions. The male female distribution was in the ratio of 1.7:1 and the mean age of the patients was 36.7 years with the youngest patient at the age of 2 and eldest one 80 years old. Of the 85 cases operated 40 (47%) were males and 45(53%) were females. Of the 92 patients we had 7 (8%) patients who were admitted for indications which did not warrant surgical interventions and were managed conservatively (Figure 1). The indications for non interventional surgical admissions are shown in Table 1.

Our cases were mostly distributed in the departments of General Surgery, Obstetrics & Gynecology, Orthopedics and very a few patients from other surgical specialties. The total number of patients operated in general surgery was 35 (41%), in O & G was 36 (42%) and 14 (17%) cases in other departments (fig2). Majority of the patients i.e., 67 cases (79%) were operated for elective indications (Figure 3) and emergency indications accounted only 18 cases (21%). The majority of the emergency indications was for superficial infection and abscesses (12 out of 18). The indications for emergency admissions are shown in table (Table 2). 30 cases (83.3%) operated out of 36 cases admitted in Gynecology department were operated as elective cases. The elective obstetric cases (Figure 4) were the main indications for operative treatment i.e. 18 cases (60%).

The number of elective cases in General Surgery was 24 (35.8%). The commonest indication was for biopsy to confirm the cause of lymphadenopathy 41.6% i.e. 10 cases. Elective interventions (Table 3) in the department of general surgery were 24 (68.6%) cases. 13 (19.4%) cases were distributed in the specialties of orthopedics, ENT, ophthalmology and urology. In female patients 36 (80%) interventions are for Gynecological and Obstetric indications and 9 (20%) cases for other indications.

We also analyzed whether these patients were taking regular ART. Only 44 (48%) patients were taking regular ART and 48 (52%) patients were on irregular ART (Figure 5). Out of 92 cases 25 cases were emergency cases. Among these 25 cases, 22 patients were irregular on ART. Only 3 patients (12%) were regular on ART (Figure 6). Out of 67 patients with elective cases 45 patients (67%) were regular on ART and 22 patients were irregular on ART (Figure 7).

We followed up the patients to identify the untoward complications and we had 2 deaths. One patient who was operated for carcinoma pancreas and cholecystojejunostomy was done for

Table 1: Indications for non intervention surgical admissions

1	Acute Pancreatitis	3
2	Acute Cholecystitis	2
3	Proctocolitis	2

Table 2: Indications for emergency surgical admissions

No.	Conditions	Numbers
1	Necrotising Infections – Incision And Drainage	6
2	Caeserian Sections	5
3	Breast Abscess – Incision And Drainage	2
4	Ectopic Pregnancy	1
5	Emergency Appendicectomy	3
6	Emergency Eye Suturing	1
	Total	18

Table 3: Elective interventions in department of General Surgery

1	Trendelenberg Operation	1
2	Lymph Node Biopsy	10
3	Mesh Repair for Hernia	3
4	Eversion TV Sac for Hydrocoele	3
5	Haemorrhoidectomy	2
6	Above Knee Amputation	1
7	Laproscopic Adhesiolysis	1
8	Plastic Surgery	1
9	Colectomy for Carcinoma Colon	1
10	Cholecys to Jejunostomy	1
	Total	24

Table 4: Elective indications in departments other than General Surgery and O & G.

Open Reduction and Internal Fixation	10
Tympanoplasty	1
Tonsillectomy	1
Nephrolitotomy	1
Total	13

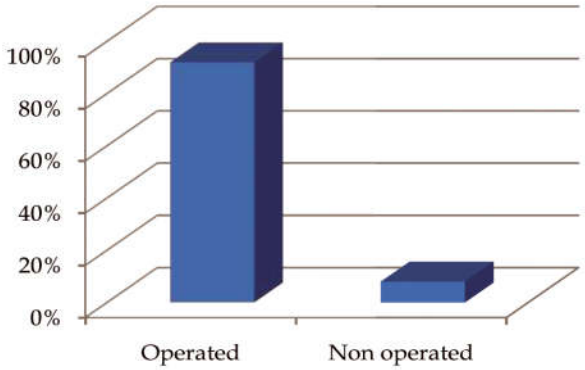

Fig 1: Shows percentage of non interventional cases and cases which needed intervention

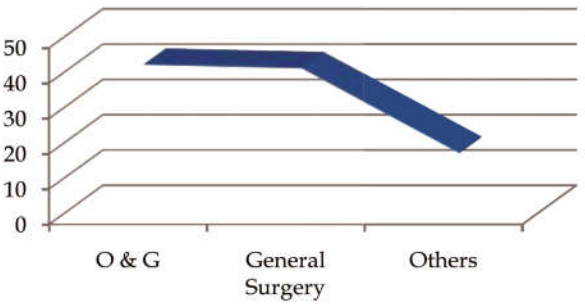

Fig. 2: Percentage of patients operated in various departments

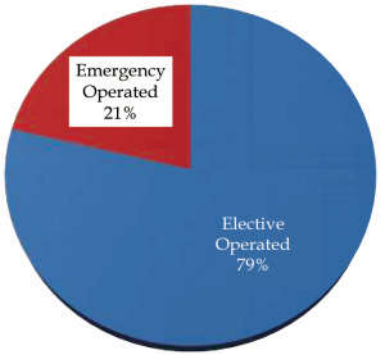

Fig. 3: Percentage of elective and emergency indications for surgery

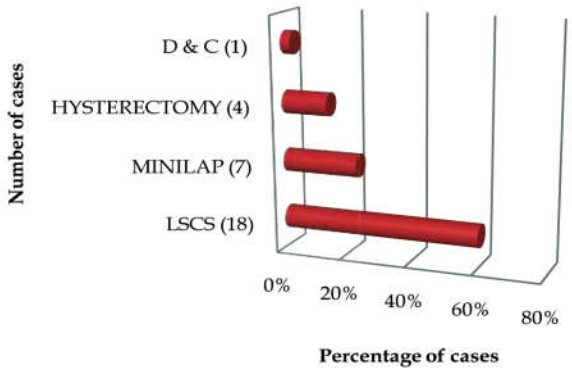

Fig. 4: Elective Surgical indications in O & G department

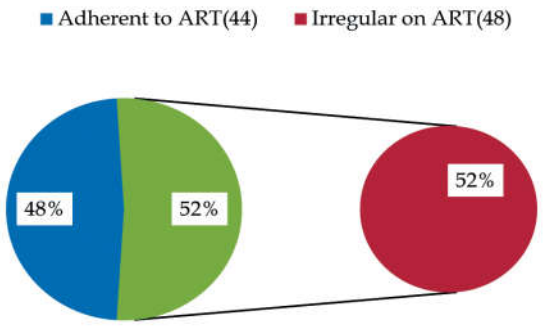

Fig. 5: Percentage of patients with surgical indications who are adherent to ART

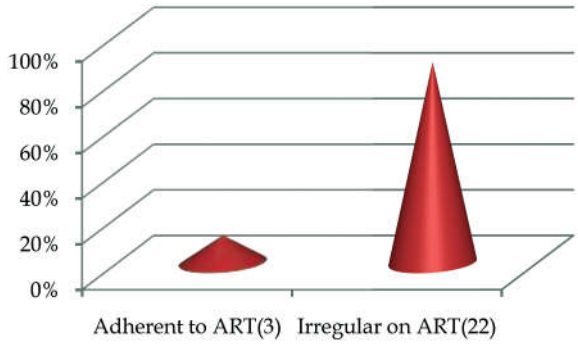

Fig. 6: Percentage of patients with emergency indications who were adherent to ART

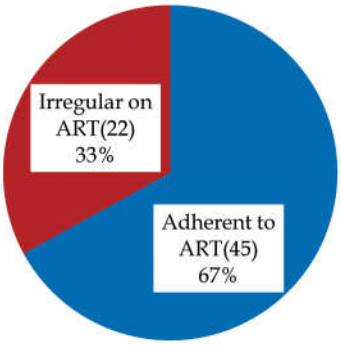

Fig. 7: Percentage of patients with elective indications who were adherent to ART

him died 15 days later following anastomotic leak. Another patient died due to septicemia following extensive necrotizing fascitis. Both of these patients who died were highly irregular on their ART.

Discussion

Before ART, series with HIV infected patients undergoing operative procedures reported conflicting results. Human immunodeficiency virus infected patients had more complications [4,5] and these results were deemed justification to withhold surgery in certain circumstances [6]. Conflicting research has addressed morbidity and mortality in HIV infected patients undergoing operative procedures since the advent of ART. The use of ART has resulted in better surgical outcomes in women undergoing cesarean section [7], gynecologic surgical procedures [8], laser surgery to treat anal condyloma [9] and cardiac valve replacement [10]. However these studies included small samples, lacked HIV non infected control subjects and dealt with specific operations which limit their generalization. Further, others found a higher rate of complications with cesarean section in HIV - infected patients compared with HIV non infected patients [11]. A lower CD4 cell count may be an independent predictor of worse surgical outcome [12]. Thus the belief persists that HIV infected patients generally do worse post operatively and some surgeons are still reluctant to perform surgery on these patients. But effective ART not only increases the survival in patients with HIV but it also increases the number of elective surgical problems in such patients.

Majority of the patients were operated for elective indications. Emergency indications accounted only 21% and 79% were operated for elective surgical Indications. The fact that there was less number of emergency indications can be due to effective ART, because in our study most of those patients with elective admissions were regular on ART and patients with emergency admissions were mostly irregular on ART. The incidence of emergency indications for surgery is much less than what is so far reported in any series. Hoberg etal [13] has published a retrospective series of surgical interventions in HIV from Kaiser Permanente Medical Care Program – Northern California and he pointed out that elective procedures were more than emergency indications, 60% compared to 40%.

Necrotizing infections and abscesses formed the major bulk of the emergency indications followed by Caesarian sections. Most of these patients were not on regular ART when they presented in surgical ward with extensive surgical infections. But the aggressive surgical management had excellent results when combined with early and effective ART. We had 2 cases of breast abscesses, which were drained and the cavity was biopsied as there was repeated infections. Both were reported as granulomatous mastitis possibly tuberculosis. Both those 2 ladies were put on anti tubercular treatment (ATT) and showed remarkable improvement. Even though reported in the literature its presentation in HIV infected patients is less commonly seen than in general population.

This data clearly emphasize the fact that the number of the surgical and obstetric interventions in HIV patients is significant and the need for patients coming for elective surgical care is on the rise. The fact that we have not analyzed the complications and outcomes of the patients is a drawback of the study and this opens the door of further research in to analyze the complications and also the factors determining the outcomes in Indian population.

To conclude we wish to highlight the fact that effective ART not only increases the survival in patients with HIV but it may also increase the number of patients requiring surgical care. The use of ART has increased elective procedures and decreased emergency indications. This study also shows the different types of surgical presentations in HIV patients.

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