

## Multiple Surgical Intervention a Possible Intervention for Survival in a Virally Suppressed HIV Positive Patients

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### Abstract

Patients with HIV/AIDS have an occasional need for surgical intervention. In several studies, the anorectum was the commonest anatomical sight of surgery. This is a case report of a patient who underwent multiple complex interventions. He initially had a laparoscopic right hemi colectomy for carcinoma of the caecum that presented like ileocaecal tuberculosis. Two years later, he presented with bilateral inguinal hernias and underwent laparoscopic bilateral meshplasty. A further three years down the line, follow up colonoscopy revealed a sigmoid malignancy and he underwent laparoscopic sigmoid colectomy with colorectal stapled anastomosis. He continued to be followed up regularly for a further three years, when he presented with obstructive jaundice and was found to have carcinoma of the bile duct at the confluence (Klatskin 's tumour). For this, he underwent PTBD, and deployment of a long stent which traversed the tumour at the confluence and extended up to the duodenum. Following this, he developed gastric outlet obstruction, and underwent laparoscopic gastro jejunostomy procedure. He succumbed a few months later, to progressive hepatic metastasis, nine years after the initial presentation. This case report is being published to pass on a message that a reasonable extension of life is possible in the HIV/AIDS patients who develop multiple malignancies, provided vigilance is maintained. To our knowledge, there is no similar case reported in English medical literature.

**Keywords:** surgical procedures; colonoscopy; laparoscopic; HIV/AIDS patients

### Introduction

Multiple primary malignancy can occur in HIV/AIDS patients, especially as their lives are being prolonged with Highly Active anti Retro viral Therapy (HAART) [1]. It is now considered a chronic debilitating disease, especially in the developing countries. Being converted into sufferers with a chronic disease, and low immunity, their risks of developing multiple malignancies are increasing, attributable to a hypo functioning T cell population [2, 3]. Increasing Life expectancy in the HIV/AIDS patient is now an accepted fact. An increase in the number of HIV/AIDS patients presenting with lymphomas or anorectal cancers, is being noticed. The above case represents a rarity, as he presented repeatedly for surgical interventions. Four of his interventions were for cancers, and one was for the bilateral hernia. Interestingly, all his procedures were performed laparoscopically, or through interventional radiology. This case report might well herald many more such to come in the future.

### Case report

A 54-year-old male, known to have HIV/AIDS for the prior six years, first presented in 2007, with loss of weight and appetite of a short duration, and a lump in the right iliac fossa. He had been on HAART medication for the six years. There was no history of per rectal bleeding, but he was having recurrent bouts of vomiting suggestive of a sub-acute intestinal obstruction. A Computed Tomography scan of the abdomen suggested ileo caecal tuberculosis, Carcinoma of the caecum. He then underwent a colonoscopy, which showed a caecal cancer that had involved the ileo caecal valve.

After preoperative investigations and consent, he underwent a laparoscopic right hemi colectomy with ileo transverse anastomosis. He had a smooth post-operative recovery, with follow-up chemotherapy, and returned to a normal life, with two normal annual follow-up colonoscopy reports. About 26 months after the laparoscopic right hemi colectomy, he presented once more with bilateral groin swellings, with severe pain, discomfort with an irreducible swelling on the left side.

Bilateral inguinal hernia with left sided irreducible indirect inguinal hernia was diagnosed, and he underwent a semi emergent laparoscopic bilateral inguinal hernia meshplasty using the trans peritoneal approach (TAPP). The peritoneum and the liver were also checked at this point of time, and found to be free of any metastatic disease.

For the next three years, he was seen at six monthly intervals, still on regular anti-retro viral medication. However, he presented with bleeding per rectum, thirty six months after his laparoscopic hernioplasty. The follow-up Carcino embryonic Antigen CEA had increased to 627, and a colonoscopy revealed an ulcer proliferative growth in the sigmoid colon, without any other polyp or premalignant lesion in the rest of the colon. The ileo colic anastomosis was done, the terminal ileum were both normal on examination during surgery. Biopsies taken during surgery showed a moderately differentiated adenocarcinoma.

After workup, he underwent a laparoscopic sigmoid colectomy with a stapled colorectal anastomosis using a circular stapler, and, once more, had an uneventful post-operative period. As the lesion was a T2N0M0, and he had already been exposed to 8 cycles, the oncologist advised against further chemotherapy. He continued to be on annual colonoscopic follow-up, and still adherence well on his anti-retro viral medication during this period.

38 months after the laparoscopic sigmoid colectomy, he presented with deep obstructive jaundice and cachexia. Ultrasound showed dilated intrahepatic biliary radicals, and a non-distended gallbladder. Contrast CT scan showed a mass at the confluence of the bile duct, a Klatskin tumour, with multiple pericholedochal lymph nodes. There was no obvious liver or peritoneal metastasis. In view of the overall general condition of the patient, the size of the mass and lymph nodes, and the reluctance of the family members to undergo any major excisional surgery, with its attendant risks, it was decided in a multi-disciplinary team meeting, to proceed with PTBD and internal stenting. Accordingly, he underwent the same, with deployment of a long metallic stent that extended into the third part of the duodenum. There was an immediate drop in the bilirubin level, and disappearance of itching.

Following a two-month period of relative improvement, he once more presented with vomiting and visible gastric peristalsis, suggestive of gastric outlet obstruction. With consent for laparotomy if required, a diagnostic laparoscopy followed by a laparoscopic gastro jejunal anastomosis was performed to relieve him from the obstruction. The tumour mass was found to involve the first part of the duodenum, causing gastric outlet obstruction.

Following this intervention, his cachexia worsened, and repeat CT scan showed him to have multiple metastases. Progressive deterioration of his condition ultimately resulted in his death, five months after the laparoscopic gastro jejunostomy, in 2016.

## Discussion

It is important to mention that this patient's quality of life was quite good in all the intervals between his major procedures. He was compliant in terms of medication, as well as in terms of regular colonoscopic follow-up. He and his family participated in the decision making process at every stage, and it was felt by the operating team that this was a major factor in the extension of his life.

The x-ray appended with this article is a classic one, documenting his various procedures (fig 1). The paucity of gas in the right half of the abdomen suggests the right colectomy, the metallic tacks in the groin area indicate the hernioplasty, the circular rows of staplers in the left iliac fossa indicate the colorectal anastomosis, and the stent extending down to the duodenum (D3) points out the interventional radiology procedure for the Klatskin 's tumour.



The suppressed T cell function permits the growth of malignancies. Reviewing 2100 cases of HIV positive individuals in a surgical department, Dua commented on the heavier workload for the surgical teams with prolongation of life in patients infected with HIV [4]. Major abdominal surgery for lymphomas, ileo caecal tuberculosis and abdominal Kaposi's, were undertaken, along with splenectomies for HIV linked thrombocytopenia. Multiple ano rectal neoplastic conditions, from Anal Intraepithelial Neoplasia (AIN) to rectal lymphoma, Kaposi's sarcoma and squamous cell carcinoma were described in this group. However, there was no patient reported with multiple pathology in this large series.

We ourselves are in the process of reporting five HIV/AIDS patients who underwent minimally invasive esophagectomy. One of these patients died of progressive pulmonary complications.

The 30 day post-operative mortality in this group of patients was studied by King [5]. There was a definite increase in mortality in HIV infected, compared to uninfected individuals. CD4 count was 90, and the viral count was 1.5Lakhs, but was that was in our single patient mortality. This statement applies to the study by King et al.

The viral count (direct) and the CD4 count (inverse) were proportionate indicators of the degree of risk. Once more in this large series multiple surgical procedures were not described.

In the rest of published English literature, we could not find a longitudinal follow-up of a HIV/AIDS patient with multiple major surgical interventions as we have described in this case report.

## Conclusion

An HIV/AIDS patient in this report was followed up for nine years, during which he underwent multiple major laparoscopic interventions, four for cancer and one for bilateral hernia. The procedures conferred a good quality of life during those nine years. This is the first such report in English medical literature.

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