

## HIV AND ABDOMINAL SURGERY

With the passage of time and improvement of the antiretroviral therapy the spectrum of pathological conditions leading to surgery in AIDS patients changes from the majority being “AIDS related” to resembling those of the general population.

### CAUSES OF ABDOMINAL PAIN:

#### Non-HIV-related

- A. Appendicitis
- B. Peptic ulcer disease
- C. Diverticulitis
- D. Cholecystitis
- E. Hepatitis
- F. Alcohol-related
- G. Ischemic bowel
- H. Abdominal aortic aneurysm (AAA)

#### Immunodeficiency-related

- I. Opportunistic GI infections
  - i. (Mycobacterium avium complex [MAC]
  - ii. cytomegalovirus [CMV]
  - iii. microsporidia)
- J. Cholecystitis (CMV)
- K. Abscesses
- L. Sexually transmitted disease-related
- M. Proctitis

#### Immunosurveillance-related

- N. Lymphomas (GI)
- O. Kaposi's sarcoma (KS)
- P. Cancer-related obstructions
- Q. Other cancers/metastatic disease

#### Medication-related/iatrogenic

- R. Perforations secondary to procedures (upper/lower GI tract)
- S. GI upset/GI reflux/gastritis
- T. Kidney stones—indinavir
- U. Pancreatitis

Nonspecific—no specific final diagnosis is reached and the symptoms resolve

## MOST COMMON INDICATIONS FOR SURGERY

### I. Bowel perforation.

CMV is the primary pathogen, it causes vasculitis in the arterioles of the GI tract, which results in focal or diffuse ulcerations, most commonly of the terminal ileum and colon, they can cause bleeding and perforation. Symptoms include abdominal pain, fever, and severe diarrhea. An upper GI series might demonstrate thickened intestinal mucosa. The diagnosis is typically made by biopsy, which demonstrates typical CMV inclusion bodies on microscopy or by culture of the virus. Perforation of the bowel caused by CMV colitis is a life-threatening surgical emergency and is the most common cause of emergency abdominal surgery in AIDS patients

### II. Bowel obstruction.

#### 1. Kaposi Sarcoma.

- Cutaneous KS typically precedes GI disease, but GI manifestations can occur initially.
- The entire GI tract can be involved, and many lesions within the GI tract remain asymptomatic.
- When symptoms do arise they include epigastric pain, dysphagia, nausea, anorexia, and persistent vomiting .
- Although GI KS can also lead to catastrophic hemorrhage, intussusception, cholelithiasis, appendicitis, or perforation, it most commonly results in obstruction.

#### 2. Lymphoma.

- Non-Hodgkin's lymphoma is the second most common neoplasm in AIDS patients and can lead to bowel obstruction.
- GI disease occurs in up to 45% of patients who have AIDS and lymphoma.
- Although peripheral lymphadenopathy is often absent, bulky retroperitoneal and mesenteric lymphadenopathy is common in AIDS patients and can cause abdominal pain, nausea, and vomiting.
- In addition to obstruction, gastric hemorrhage and intestinal perforation with peritonitis have also been reported.

#### 3. Intussusception.

### III. Toxic Megacolon.

In HIV-positive patients, toxic megacolon commonly results from underlying CMV colitis in addition to causes found in HIV-negative populations.

### IV. Crohn's and Ulcerative Colitis ??: to date there is no study indicating increase in incidence or severity of the disease compared to the general population.

## OUTCOMES OF SURGERY

- The experience with abdominal surgery indicates that patients with HIV infection tolerate surgical procedures well and do not have an unusually high incidence of postoperative complications.
- Rates of morbidity and mortality are directly related the CD4 count.

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