GASTROINTESTINAL HISTOPLASMOSIS PRESENTING AS COLONIC PSEUDOTUMOUR

We report a case of gastrointestinal histoplasmosis in a 45-year-old HIV positive man who was misdiagnosed as a case of colonic cancer. The patient presented with low-grade fever, pain in lower abdomen, anorexia and weight loss of six months duration. On examination a lump in the left iliac fossa was detected. Colonoscopy revealed stricture and ulcerated growth in the sigmoid colon. Radiological investigations suggested malignant/inflammatory mass in the sigmoid colon with luminal compromise. Patient was operated and ulcerated tissue was sent for histopathological examination, which revealed numerous intracellular, 2-4 μm, oval, narrow-based budding yeast cells suggestive of Histoplasma capsulatum. Subsequently, the patient developed fluffy opacities on X-ray chest. Examination of sputum revealed presence of acid-fast bacilli and yeast forms of H. capsulatum. Patient was started on amphotericin B but died on the seventeenth postoperative day. The diagnosis of histoplasmosis was made retrospectively. Atypical presentation and rarity of the disease led to this diagnostic pitfall. To the best of our knowledge this is the first report of gastrointestinal histoplasmosis presenting as colonic pseudotumour from India.

Key words: Colonic pseudotumour, gastrointestinal histoplasmosis, HIV infection

Histoplasmosis is a granulomatous disease caused by the intracellular dimorphic fungus Histoplasma capsulatum.[1] H. capsulatum is found most commonly in North America and Central America, but the fungus has been reported from diverse areas around the world. In endemic areas infection occurs during day-to-day activities that lead to disruption and subsequent inhalation of soil contaminated with bird or bat guano. In areas endemic to histoplasmosis the vast majority of infections are either asymptomatic or present as a mild illness that is never recognized as being histoplasmosis.[1] Clinically, histoplasmosis may present as a pulmonary (acute pulmonary histoplasmosis, chronic cavitary pulmonary histoplasmosis, granulomatous mediastinitis and mediastinal fibrosis) or a disseminated infection.[1] Disseminated histoplasmosis has become increasingly important with the advent of new and expanding population of immunocompromised patients. Although respiratory tract is the primary site of the disease, virtually all organs rich in mononuclear cells can be infected.[2] Primary gastrointestinal infections are an uncommon presentation of the infection, almost always associated with disseminated form of the disease and/or immunodeficiency.[2] Symptomatic gastrointestinal tract infection is more common in AIDS patients and can mimic other AIDS associated opportunistic infections that cause diarrhea. The colon is the most commonly involved site followed by small bowel with lesions presenting as ulcerations, polyps, strictures or perforations.[1]

Case Report

A 45-year-old male patient working as a supervisor in a factory presented in the Gastrointestinal surgery OPD in March 2007 with complaints of low-grade fever, pain in lower abdomen, anorexia and weight loss for the last six months. There was no history of constipation, jaundice, haematemesis or melena. The patient was non-diabetic and normotensive with no past history of tuberculosis.

On general physical examination, pallor was present; however, there was no icterus, cyanosis, clubbing, pedal oedema or lymphadenopathy. On per abdominal examination, mildly tender lump was present in left iliac fossa. Rest of the abdomen was soft and there was no organomegaly. The rest of the systemic examination was normal. The patient was advised computed tomography (CT) of abdomen, colonoscopy with biopsy, barium enema and ultrasonography (USG) of abdomen. CT of the abdomen conducted in March 2007 revealed thick sigmoid colon and descending colon with luminal compromise. Colonoscopy with biopsy was carried out in April 2007 that revealed stricture and ulceronodular growth in sigmoid colon at 10-15 cm from anus. Biopsy taken during colonoscopy showed acute severe colitis and Ziehl-Neelsen staining of the tissue was negative for acid-fast bacilli. Barium enema conducted in April 2007 showed asymmetric thickening of the sigmoid colon with apple core appearance with shouldering of both ends suggestive of malignant or inflammatory mass. No abnormality was detected on USG of abdomen done in May 2007. Based on the above findings a diagnosis of carcinoma of sigmoid colon was made and elective surgery was planned. Chest X-ray and other investigations carried out on 14th May 2007 as part of the pre-anaesthesia check-up were normal. The patient was admitted in the gastrointestinal surgery ward on 16th May 2007 and was operated on 24th May 2007. During the operation segmental sigmoid colectomy with end to side colo-colic anastomosis was performed. The immediate postoperative period was uneventful.

Histopathological examination of the resected segment of the sigmoid colon revealed numerous intracellular, 2-4 μm, oval, narrow-based budding yeast cells suggestive of H. capsulatum (Fig. 1). Fluffy opacities in both the lung fields were seen on a repeat chest X-ray done on 30th May 2007. In view of the above findings serum specimen (for HIV serology), sputum specimen (for microscopy and for fungal and mycobacterial culture) and blood specimen (for fungal culture) were collected. Anti-HIV antibody was positive by ELISA (ERBA LISA HIV1 +2, Erba Diagnostics, Mannheim, Germany), immunochromatographic test (Anti-HIV Trline Cassette Serum/ Whole Blood Test, Ind Diagnostic Inc, Delta B.C, Canada) and dot immunoassay (CombAids-RS, Span Diagnostics Ltd, Surat, India). Giemsa staining of sputum showed intracellular, 2-4 μm,
oval, narrow-based budding yeast cells suggestive of *Histoplasma capsulatum* (magnification, ×1000)

**Figure 1:** H and E staining of the colonic biopsy showing numerous intracellular, 2-4 μm, oval, narrow-based budding yeast cells suggestive of *Histoplasma capsulatum* (magnification, ×1000)

Cimponeriu *et al.* reported two cases of colonic histoplasmosis presenting as cancer. Case number one presented with cough, breathlessness, fever, weight loss and diarrhoea. The physical examination was unremarkable. The lesion mimicking cancer was found in right colon. Case number two presented with abdominal pain, fever, diarrhoea, anorexia and weight loss. On examination, cervical lymphadenopathy and hepato-megaly was noted. The lesion mimicking cancer was found in hepatic flexure. Both the cases were males and both were HIV seropositive.[2]

The case presented here had many unusual features. There was no prior clinical suspicion of HIV infection. There was involvement of only sigmoid colon and there was no associated hepatosplenomegaly, lymphadenopathy or oropharyngeal ulcer. Although colonic histoplasmosis mimicking carcinoma has been reported from various parts of the world,[2,7] this is first such report from India.

In cases of disseminated histoplasmosis, the yield of blood and sputum culture has been reported to be 75% and 50%, respectively.[10] However, we could not isolate *H. capsulatum* either from blood or sputum.

Due to varied and non-specific clinical manifestations of systemic histoplasmosis and low index of suspicion, most of the infections are either misdiagnosed or are under reported. With the continuing pandemic of AIDS and an ever-increasing pool of immunocompromised patients, it would not be wrong to predict an increase in incidence of histoplasmosis in the near future. It is therefore suggested that clinicians, microbiologists and pathologists be more aware of the clinical manifestations, risk factors and laboratory diagnosis of histoplasmosis.

**References**

MYIASIS IN DIFFERENT TYPES OF CARCINOMA CASES IN SOUTHERN INDIA

Myiasis maggots were isolated from the cancerous wounds, when the patients reported to the Department of ENT-OPD, JIPMER, Pondicherry. Maggots were identified to Chrysomyia bezziana based on characteristic patterns of posterior and anterior spiracles. Although the categories of cancer wounds were different, invasions were due to C. bezziana, which is very common in suburban areas of Tamil Nadu and Pondicherry in southern parts of India. This observation showed the importance of hygiene and sanitation in tropical countries with high fly population and emphasised the need for correct diagnosis of this obligatory myiasis, which was destructive. Through proper health care, further destabilization due to myiasis was avoided.

Key words: Carcinoma cases, Chrysomyia bezziana, myiasis

Myiasis, the infestation of live human and vertebrate animals with dipterous fly maggots is common throughout the tropical region.\(^1\) This misery is generally associated with traumatic injury, erosive or ulcerative lesions or haemorrhage.\(^2\) Occurrence and site of invasion of myiasis vary with the sanitary conditions and other environmental factors. Infestation with maggots causes severe pain and mental agony among humans, while hammering economic loss significantly among domestic mammals.\(^2\) Despite the fact that the scourge is very common in rural areas of the tropical region, myiasis has been reported around the world.\(^3-5\) Severity of myiasis depends on the location of the infestation, lesions and tissue inflammation. Many species of dipterous flies among the genera Chrysomyia and Cochliomyia have been reported to be the most important obligatory myiasis producers among human and/or domestic animals.\(^6,7\)

Infestation with maggots from myiasis of perirectal area caused by C. bezziana from carcinoma cervix, grade III was reported from central part of India.\(^6\) However, information on species involved in myiasis in southern part of India is scanty.

To know the species of dipterous flies involved, an attempt was made to screen and isolate maggots from patients having cancerous wounds. In the present communication four cases of myiasis involving carcinoma of larynx, hypopharynx, cheek and lower lip are reported for the first time from southern part of India.

Case Reports

Case 1

A 46-year-old female patient (Fig. 1), belonging to a low socioeconomic family, residing in Ariankuppam, one of the suburban areas of Pondicherry Union Territory, reported to out patient department (OPD) of ENT of the Jawaharlal Nehru Institute of Post-graduate Medical Education and Research (JIPMER), Pondicherry. She had a complaint of dysphagia for six months and stridor, for which emergency tracheostomy was done. The patient was diagnosed as a case of carcinoma of hypopharynx, with secondaries in the neck in advanced stage and was planned for symptomatic management. Three months later she presented with maggots in the fungating growth of neck and pharynx. The maggots were removed manually giving topical application of turpentine oil superficially. Daily cleaning and dressing were done and nasogastric tube was inserted and the patient is on palliative care.