

Case Report

Sudden Death due to Diseased Intestines A case report of Crohn's Disease

¹Yogender Malik, ²Rituraj Chaliha, ³Pushpendra Malik, ⁴Rakesh Kumar Jagdish, ⁵Kalpna Sangwan, ⁶Chavi Rathee

Abstract

Here we will present a case report of sudden, suspicious death of a truck handyman from Haryana who was on his way to Guwahati. He complained of fever and pain abdomen since last 2 days and was found unconscious in the morning after reaching Guwahati. External examination during autopsy did not reveal any injury. On opening the abdomen, multiple perforations in small and large intestines were found. Histopathology findings were found to be suggestive of Crohn's disease, an inflammatory bowel disease (IBD). Crohn's disease can affect any part of gastrointestinal tract and is rare in Asia but its incidence is increasing now. Peak age of onset of IBD is 15-30 years and a 2nd peak b/w 60-80 years. Highest mortality in IBD patients is during 1st years of disease. Intestinal perforations are known cause of sudden deaths but Crohn's disease causing perforations is a relatively rare entity in our country, India.

Key Words: Crohn's disease, Intestinal Perforation, Autopsy, Inflammatory bowel disease

Introduction:

Two types of Inflammatory Bowel Disease (IBD) are Crohn's disease (CD) and ulcerative colitis. Crohn's disease, an eponym based on the 1932 description by Crohn's, Ginzburg, and Oppenheimer, has existed for centuries. [1] In Asia and South Africa IBD is rare. Peak age of onset of IBD is 15-30 years and a 2nd peak b/w 60-80 years. Highest mortality in IBD patients is during 1st years of disease. [2] Earlier males were said to be more prone to the disease but now Crohn's disease is more common in females. [1,3]

Case Report:

Dead body of a 26 years old male, a truck handyman from Haryana, was received in Dept. of Forensic Medicine and Toxicology, Gauhati Medical College and Hospital (GMCH) for autopsy.

Corresponding Author:

*Assistant Professor
Dept. of Forensic Medicine and Toxicology,
BPS Govt. Medical College for Women,
Khanpur Kalan, Sonapat (Haryana)
E- Mail: dryogendermalik@gmail.com

²Prof &HOD, Dept. of FMT,
Gauhati Medical College & Hospital, Guwahati

³Senior Resident, Dept. of Oncosurgery,
Pt. BD Sharma PGIMS, Rohtak

⁴Senior Resident, Dept. of Rheumatology,
AIIMS, New Delhi

⁵Dental Surgeon

⁶Medical Officer, Haryana Civil Medical Services

DOR: 14.05.2013 DOA: 26.6.2014

As per history given by the attendant, they were coming from Haryana to Assam in truck and the deceased complained of fever and pain abdomen since last 2 days. After coming to Gauhati he was admitted in Gauhati Medical College and Hospital and died before investigations completed and diagnosis reached.

Autopsy Findings:

Externally he had thin built and there was no external injury. On opening the abdomen, the peritoneal cavity contained fecal matter. Stomach was empty and its mucosa was congested. Mucosa of the small intestines was congested and edematous. There were multiple perforations of varying sizes. Perforations were oval shaped and margins were erythematous.

Mucosa of the large intestines was congested and edematous. There were multiple perforations of varying sizes. Perforations were oval shaped and margins were erythematous. All other organs are congested. Specimen preserved for chemical analysis gave negative result.

Histopathology Examination:

In histopathology examination report the small intestines showed diffuse mixed inflammatory infiltrates, focal collections of polymorphs (micro abscesses), inflammatory necrosis and vascular proliferation in serosal layer. The large intestine showed mixed inflammatory cell infiltrate in all layers and focal collection of polymorphs (micro abscesses) in serosal layer with granulation tissue reaction. Kidneys showed cloudy swelling.

Cause of Death:

The death was declared to be due to peritonitis as a result of perforation of small and large intestine following Crohn's disease (natural death)

Discussion:

There is transmural inflammation in Crohn's disease. During the disease course bowel wall becomes thickened, narrow and fibrosed. This leads to chronic and recurrent bowel obstruction.

Microscopically the earliest lesions are aphthoid ulcerations and focal crypt abscesses and then non-caseating granulomas in all layers of bowel wall from serosa to mucosa (though these are pathognomic features of CD but are rarely found on mucosal biopsies).

Crohn's disease can affect any part of Gastro-intestinal tract from mouth to anus. In 40-55% cases both small and large intestines are involved. It is a transmural process. Free perforations occur in 1-2% of cases, usually in ileum but occasionally in jejunum or as a complication of toxic mega colon.

Peritonitis of free perforation, especially colon, may be fatal. [2]

I have not found any case report of sudden death due to Crohn's disease in India, however case report from Japan was found. [4]

Conclusions:

Meticulous autopsy in such cases of sudden death helps in eliciting cause of death and removing suspicion from the minds of relatives of deceased as well as investigating agencies.

These types of cases give opportunities to the autopsy surgeons to be familiar with the various diseases which cause sudden death. Histopathology report is very useful in eliciting cause of death in such cases. So, it is imperative that histopathology report mentions the impression of the disease at the end of report.

References:

1. **Turner JR.** The Gastrointestinal tract. In; Kumar, Abbas, Fausto, Aster editors. Robbins and Cotran Pathologic Basis of Disease. 8th edition. Elsevier. 2011; p. 808-11.
2. **Friedman S, Blumberg RS.** Inflammatory Bowel Disease. In; Kaspar, Braunwald, Fauci, Hauser, Longo, Jameson editors Harrison's principles of internal medicine, vol-II. 16th edition. Mc Grew Hill medical publication, New Delhi. 2008; p1776-81.
3. **Pryce D. M., Ross C. F.** Ross's Post-Mortem Appearances. 6th Edition. Oxford University Press, New York Toronto. 1963; p 181.
4. **Hitosugi M, Kitamura O, Takatsu A.** Sudden death of a patient with Crohn's disease. Nihon Hoigaku Zasshi. 1998 Jun; 52(3):211-4.