MATERIAL AND METHODS
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In the present study an attempt has been made to recognise the incidence of Abdominal Tuberculosis in Patients of chronic Pain in abdomen. The patients were Indoor cases admitted in M.L.B. Medical College, Hospital, Jhansi.

These patients were diagnosed by following procedures:

(i) Clinical Examination.
(ii) Biochemical Methods.
(iii) Serological Procedures.
(iv) Radiological Techniques.
(v) Pathological and Micro-biological Techniques.
(vi) Histopathological Techniques.
(vii) Operative Procedures.

These methods of diagnosis were conducted in department of surgery, department of pathology and Micro-Biology and department of Radiology, M.L.B.
Medical College, Jhansi in the season of 1989 to 1990.

The patients were treated by conservation treatment and/or operative treatment, in surgical wards.

Attempts were made to correlate the results of study with clinico-pathological observations, operative and histopathological observations.

The following procedures have been adopted.

(1) **HISTORY**

In each case a detailed history of patient was taken with particulars of patients i.e., name, age, sex, socio-economic status, occupation, monthly income, status of literacy, number of family members and number of living rooms.

The presenting complaints were recorded in chronological order and they were elaborated under heading of history of present illness with particulars emphasis laid on site, character of complaints and the progress of disease.
Any significant history past, dietary history and obstetrical history, in patient, was also interrogated.

(II) PHYSICAL EXAMINATION:

This was carried out under following heads.

(i) General Examination:

Under this heading, general condition of patient was noted, with emphasis over state of nutrition, oedema, clubbing, temperature, paller and state of lymph nodes all over the body.

(ii) Systemic Examination:

Under this heading, each system was examined thoroughly with particular stress over examination of abdomen, respiratory and reticuloendothelial system.

(iii) Abdomen:

In examination of Abdomen following points were noted.

-Shape of Abdomen.

-Distention of Abdomen.

-Respiratory Movements.
- Umblicus.
- Any discharging Sinus.
- Hernial Sites.
- Testes (in male patients).
- Any scar over abdomen.
- Characteristics of lump in Abdomen.
  (if present)
- Perianal region.
- Per-rectal Examination.

(iib) Respiratory system.

(iic) Cardio vascular system.

(iid) Muscule-skeletal system.

(iie) Reticulo-endothelial system.

(III) **BLOOD STUDIES:**

Blood was collected in double exalate vial at bed side in wards and the following investigations were done.

(1) **Leucocyte count:**

Total leucocyte and differential leucocyte and differential leucocyte counts were done by using Neubaur chamber glass slides.
(11) **Erythrocyte sedimentation rate:**

This investigation was done by using Wintrobe's tube.

(IV) **Montoux Test:**

This test was performed in patients at bed side by using tubercular syringe and hypodermic needles of 26 gauge the reagent used is tuberculin diluted (Purified Protein Derivative) with concentration of 5 Tu/0.1 ml; flexor surface of forearm was selected, about 4 inches below the elbow joint. The skin is cleansed with 70% alcohol and allowed to dry. 0.1 ml of tuberculin (PPD) Solution is taken in sterite tuberculin syringes fitted with a short 26 gauge needle. The reagent is injected intra dermally and results were read between 48 to 72 hours after injection.

Diameter of induration was measured transversely to the long axis of the forearm and recorded in millimeters. Reaction to tuberculin was classified as follows:

(i) **Positive:**

Induration measuring 10.0 mm or more.
(ii) **Doubtful:**

Induration measuring between 5 to 9 mm. In this care retesting was done.

(iii) **Negative:**

Induration of less than 5 mm.

(v) **RADIOLOGICAL TECHNIQUES:**

Patients were investigated, for following procedures, in department of Radiology, M.L.B. Medical College, Hospital, Jhansi.

(i) X-ray Chest P.A. View.

(ii) Plain X-ray abdomen antero-posterior view, with scout film, in erect posture.

(iii) Barium Meal follow-through.

(iv) Barium Enema.

X-ray Chest Postero-anterior view and plain X-ray abdomen needed no preparation of patient neither any specialised technique.

**Barium Meal Follow-Through:**

Barium sulphate was used as non-flocculating
contrast medium in proper dilution with tap water
(three parts of barium sulphate powder dissolved
in to two parts of water).

One day prior to the investigation light
diet was given to patient. In preceding night a
mild lumature was given at bed time. Then the
patient was kept nil orally till the investigation
was over.

Patient was allowed to swallow about 400 ml.
of barium sulphate as non-flocculating contrast
medium at 5.00 A.M. Patient was then examined under
fluoroscopy, to check the motility and if the
contrast reached ileo-caecal junction, with the help
of screening and then roentgenogram was taken.

Barium Enema:

Barium sulphate was used as non-flocculating
contrast medium in dilution with tap water (three
parts of barium sulphate powder dissolved in two
parts of water).

About two days prior to the investigation
patients was prepared by giving laxatives and on the day of examination cleansing enema was given three hours prior to procedure. Patient was not given anything orally till the investigation was over.

About one litre of barium sulphate solution was used for procedure by enema can. Connection tube, made of India rubber was attached to the enema can. About 7.5 to 10 cm. of this tube was introduced into the anal canal and rectum after lubricating it with xylocaine ointment. During the enema, the container was kept at the height of about 30 to 45 cm.

One exposure was taken before evacuation and one after evacuation of enema contents.

(VI) PATHOLOGICAL AND MICROBIOLOGICAL TECHNIQUES:

Each case was investigated for various techniques in following samples.

(i) Sputum for acid fast bacilli.

(ii) Gastric aspirate for acid fast bacillus staining, culture and animal inoculation.
(iii) Ascitic fluid was also investigated for gross physical examination, biochemical, cytological examination and acid fast bacillus staining etc.

These specimens viz-sputum, gastric aspirate and ascitic fluid were collected bed side in wards, in plain vials and carried to department of pathology and Microbiology for various methods of investigations.

(VII) HISTOPATHOLOGICAL TECHNIQUES:

Tissue was taken out from the involved organ by operative procedure like laparotomy, open peritoneal biopsy and was collected in operation theatre, in glass containers and then sent to department of Pathology after having placed them on Formal Saline (Formalin) the tissue was processed and then stained by Haematoxyline and Eosine stain and Ziel-Heelsen stain.

(VIII) OPERATIVE PROCEDURES:

These procedures like abdominal paracentisis, open peritoneal biopsy and exploratory laparotomy were done in wards and operation theatre.