

single large motion. Only two patients complained of marked diarrhoea. One of these two patients had, on a previous occasion, been given the old phenolphthalein compound, and had developed severe diarrhoea and vomiting. With the new dye, the diarrhoea was less severe, and there was no vomiting. None of the patients showed the dye in the colon, and of the patients who were given a subcutaneous injection of  $\frac{1}{2}$  c.cm. of pitressin, none showed gas in the hepatic flexure. Nine patients complained of a burning sensation in the urethra on micturition: in two cases it was very severe. This symptom disappeared after the second or the third micturition.

#### Comment

The new gall-bladder dye is, in my opinion, a great improvement on the phenolphthalein compound.

The difficulties with the phenolphthalein compound are not insurmountable, but the new medium gives far less trouble.

The contra-indications are the same as with any iodine compound.

Pheniodol is sold as sugar-coated granules and as pheniodol meal. In both the bitter taste is masked. The results with both are similar but the sugar-coated granules produce less or no burning in the mouth or throat provided the patient does not chew or suck them.

A single dose equivalent to three grammes of pheniodol gives very good results in an average case. In patients weighing more than 14 stones, we have very safely given  $4\frac{1}{2}$  to 6 grammes equivalent of pheniodol. The method of preparation for the patient is the same as with the old medium.

#### REFERENCES

- DOHRN, M., and DIEDRICH, *Deut. Med. Woch.*, **66**, 1133. P. (1940).  
GRAHAM, E. A., and *J. Amer. Med. Assoc.*, **82**,  
COLE, W. H. (1924). 613.

#### BIBLIOGRAPHY

- BRYAN, L., and PEDERSEN, *Radiology*, **42**, 224. N. S. (1944).  
HEFKE, H. W. (1944) .. *Ibid.*, **42**, 233.  
KEMP, F. H. (1943) .. *Brit. Med. J.*, *ii*, 674.  
VAUGHAN, W. W., and *Radiology*, **43**, 578.  
EICHWALD, M. (1944).

### FURTHER CASES OF INTEREST SEEN AT THE WILSON RADIOLOGICAL DEPARTMENT OF THE ERSKINE HOSPITAL, MADURA\*

By S. SUBRAMANYAM

Civil Assistant Surgeon  
Radiologist, Erskine Hospital, Madura

#### (A) Digestive system

Case 1.—*Broncho-oesophageal fistula* (see figure 1, plate V). A male, aged 25, complaining of dysphagia. Stricture of the oesophagus

was suspected. Under fluoroscopy, on 7th December, 1944, a spoonful of barium-swallow made him cough, and the emulsion was forced into the left bronchus. The skiagram shows the fistula; and the irregularity of the lumen of the oesophagus is suggestive of malignancy.

Case 2.—*Diverticulum of the stomach* (see figure 2, plate V). A male, aged 30 years, admitted for investigation of dyspepsia. Barium meal examination on 3rd December, 1945, revealed a gastric diverticulum, in which barium persisted after the stomach had emptied.

Case 3.—*Rotation of the duodenal cap in peptic ulcer* (see figure 3, plate V). A female, aged 48 years, with symptoms of peptic ulcer. X-ray examination on 1st March, 1943, showed rotation of the duodenal cap to the left, which is considered to be pathognomonic of an infiltrated ulcer. Laparotomy showed the first part of the duodenum dislocated, and the liver and pancreas adherent; there was obstruction to the stomach contents, and a suggestion of malignancy.

Case 4.—*Peri-cholecystitic adhesions* (see figure 4, plate V). A female, aged 46 years. Barium meal examination on 3rd March, 1943, showed a lateral angling of the Pars descendens duodeni, possibly due to adhesions between the duodenum and the gall-bladder. No operation was done here.

Case 5.—*Small bowel obstruction* (see figure 5, plate V). A female, aged 30 years. The radiograph (29th July, 1941) shows well-marked distension and a concertina-like appearance of the small bowel, due to obstruction.

Case 5a.—*Jejunal stasis* (see figure 5a, plate V). A male, aged 35 years, was radiographed on 13th September, 1943, for the investigation of a tumour in the left hypochondrium of seven months' duration. The jejunum, throughout, showed a fixed pattern-ness, which is seen in the skiagram, persisting at six hours after the barium meal administration, when practically the rest of the meal is in the colon. This would seem to be either a case of jejunitis (of which we have had several examples here), or one of those very rare instances of jejunal carcinoma. Clinically, a nodular mass was felt in the left hypochondrium.

Case 6.—*Tuberculosis of the caecum* (see figure 6, plate VI). A female, aged 30 years, x-rayed on 5th March, 1943. The typical Stierlen's sign (barium filling of the terminal ileum and hepatic flexure, and a gap in-between) was present. This sign, though not pathognomonic of tuberculosis, is none the less a valuable diagnostic finding.

Case 7.—*Tumour abdomen* (see figure 7, plate VI). A male, aged 40 years, with symptoms suggestive of carcinoma of the hepatic flexure, or chronic intussusception. The skiagram taken on 16th October, 1945, shows a filling defect of the proximal portion of the transverse colon; and a radiological diagnosis

\* Supplementary to the article in the *Indian Medical Gazette*, Vol. LXXVIII, of July 1943.

of an extrinsic tumour causing pressure deformity was suggested. Laparotomy revealed a glandular tumour outside the lumen of the bowel, which was intact.

*Case 8.—Intestinal polyposis* (see figure 8, plate VI). A male, aged 56 years, with a history of passing blood and mucus per bowel, since 3 weeks.

A barium enema examination on 20th September, 1943, showed a beehive appearance of the descending colon in its middle two-fourths. A previous barium meal examination revealed a hold-up at the splenic flexure. While malignancy cannot be ruled out, the appearances are suggestive of polyposis.

#### (B) Respiratory system

*Case 9.—Bronchogenic carcinoma* (see figure 9, plate VI). A male, aged 45 years. Plain x-ray of the chest showed a kidney-shaped shadow in left hilar zone, associated with effusion in the left pleural cavity, and was suggestive of a carcinoma. Bronchography with iodized oil on 1st October, 1945, showed broncho-stenosis of a main branch of the left bronchus.

*Case 10.—Bilateral hydatid cyst* (see figure 10, plate VI). A child, aged 6 years, with a nodular swelling below xiphisternum, and enlarged liver, associated with fever, and pain in the abdomen of 5 days' duration suggestive of a tumour in the hypochondrium. The skiagram taken on 16th July, 1945, showed a cystic tumour in either lung. There was a third one in the liver.

*Case 11.—Congenital cystic disease of the lung* (see figure 11, plate VI). A male, aged 23 years. Intratracheal injection of iodized oil and x-ray on 27th July, 1944, revealed a condition of cystic disease of the lung.

#### (C) Circulatory system

*Case 12.—Patent inter-auricular septum* (see figure 12, plate VII). A boy, aged 15 years, with congenital heart; there was breathlessness associated with cyanosis, but no clubbing was present. X-ray examination on 19th March, 1945, showed a patent foramen ovale as the main defect, the enlarged right hilum clinching the diagnosis.

*Case 13.—Pericardial effusion* (see figure 13, plate VII). A boy, aged 12 years. Examined on 26th February, 1945. The typical 'tobacco pouch' heart is seen. About 12 oz. of fluid were aspirated.

#### (D) Skeletal system

*Case 14.—An unusual type of fracture of cervical spine* (see figure 14, plate VII). A female, aged 39 years, admitted with quadriplegia, consequent on a fall. Bed x-ray taken on 19th September, 1944, shows an unusual type of fracture, the bodies of the 3rd, 4th and 5th cervical vertebræ being involved (a true lateral view was not found feasible).

*Case 15.—Scurvy* (see figure 15, plate VII). A child, aged 2 years. X-rayed on 11th August, 1945, for suspected osteomyelitis of femur. Radiographs show the typical splaying and condensation of the lower end of the femoral diaphysis, and raising of the periosteum due to sub-periosteal hæmorrhage. Treatment with vitamin C preparations brought about a cure.

*Case 16.—Post smallpox joints* (see figure 16, plate VII). A female child, aged 10 years, was x-rayed on 16th January, 1943, for deformity of both elbows and left wrist. There was a previous history of smallpox. The destructive changes about the epiphyses in the left wrist and elbow are well marked.

*Case 17.—Osteochondromatosis* (see figure 17, plate VII). A female, aged 48 years, was complaining of pain in the knee. The skiagrams taken on 29th July, 1944, show the presence of several loose bodies.

*Case 18.—Marie-Strümpell type of arthritis* (see figure 18, plate VII). A male, aged 30 years, was having pain and rigidity of the spine. X-ray examination on 19th November, 1943, shows the typical 'bamboo-spine', with ossification of several ligaments.

#### (E) Miscellaneous

*Case 19.—*A female, aged 25 years (see figures 19 and 19a, plate VIII), was admitted on 14th March, 1943, for gun-shot wounds in the abdomen. The skiagrams show her abdomen sprayed with shots, both in and outside. While in hospital, she showed no rigidity of the abdominal wall, and scarcely ran a temperature. Two of the shots were removed from her anterior abdominal wall, and ten were passed out per rectum. She was discharged cured on 17th May, 1943; and, when seen several months afterwards, looked quite fit.

*Case 20.—Congenital malformation* (see figure 20, plate VIII). A male child, aged 2 years, x-rayed on 16th December, 1944. The picture shows multiple hemivertebræ, fusion of the ribs, spina-bifida of the lumbo-sacral region, etc., associated with spinal scoliosis. The nature of the extraordinary bone-segments, seen on either side of the lower lumbar spine, is not clear.

My sincere thanks are due to Lieut.-Colonel A. S. Leslie, I.M.S., Superintendent of this hospital for his courtesy, and kindness in permitting me to make use of the hospital records.

#### BIBLIOGRAPHY

- BRAILS福德, J. F. (1935). *Radiology of Bones and Joints*. J. and A. Churchill, Ltd., London.
- CARMAN, R. D. (1920) .. *Roentgen Diagnosis of Diseases of the Alimentary Canal*. W. B. Saunders Co., Philadelphia.
- KERLEY, P. (1936) .. *Recent Advances in Radiology*. J. and A. Churchill, Ltd., London.
- KÖHLER, A. (1935) .. *Röntgenology*. Baillière, Tindall and Cox, London.
- REDDING, J. M. (1926) .. *X-Ray Diagnosis*. Cassell and Co., Ltd., London.

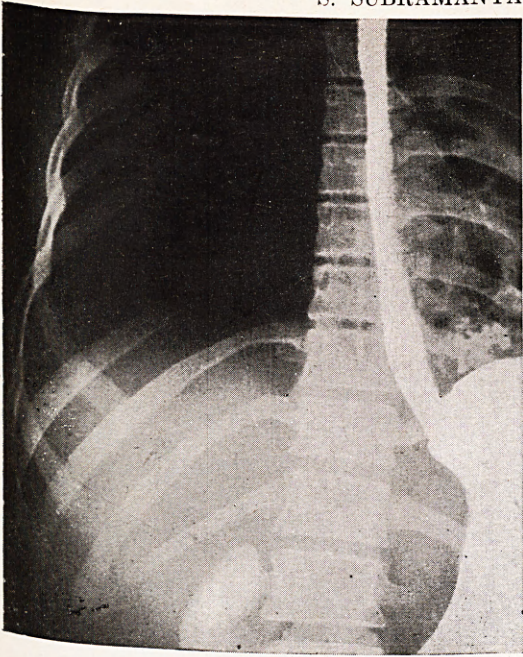


Fig. 1.

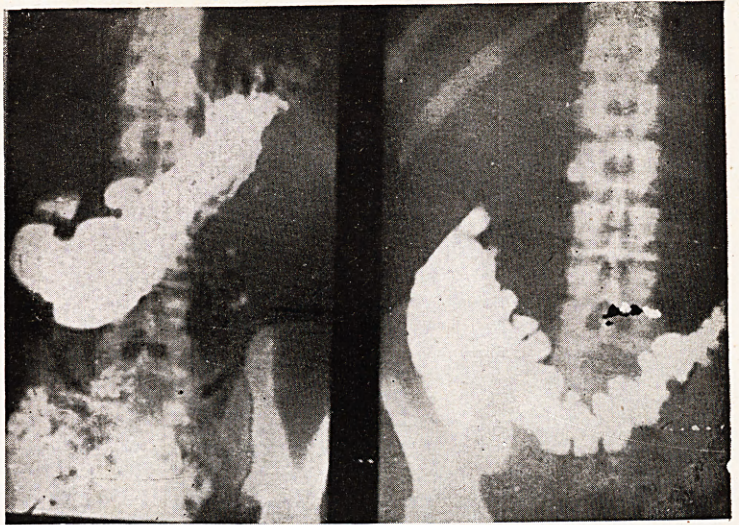


Fig. 2.

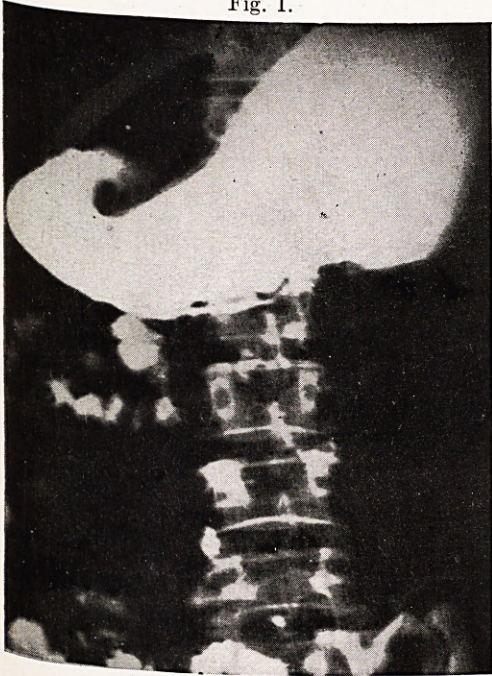


Fig. 3.

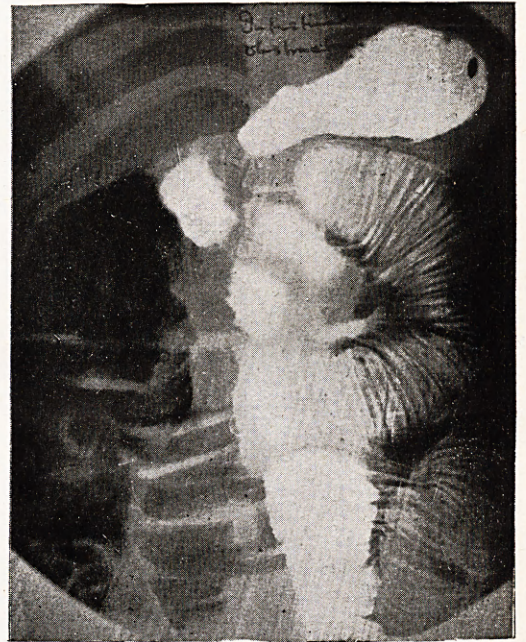


Fig. 5.

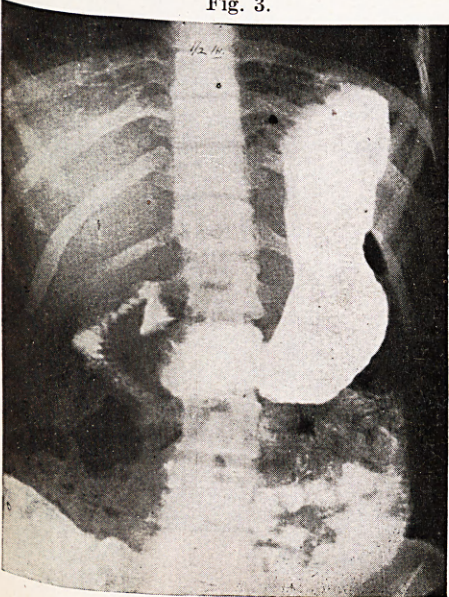


Fig. 4.

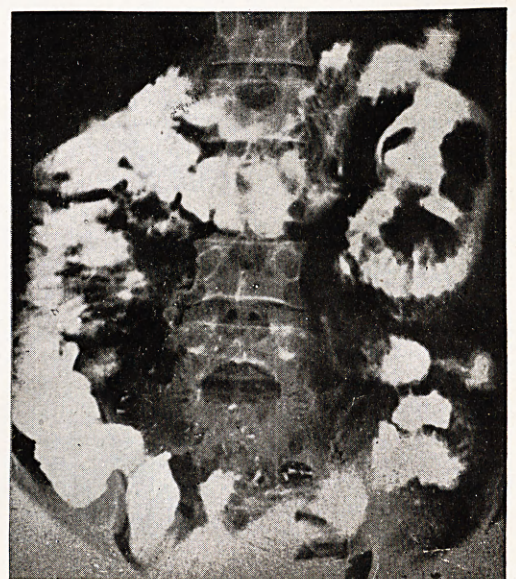


Fig. 5a.

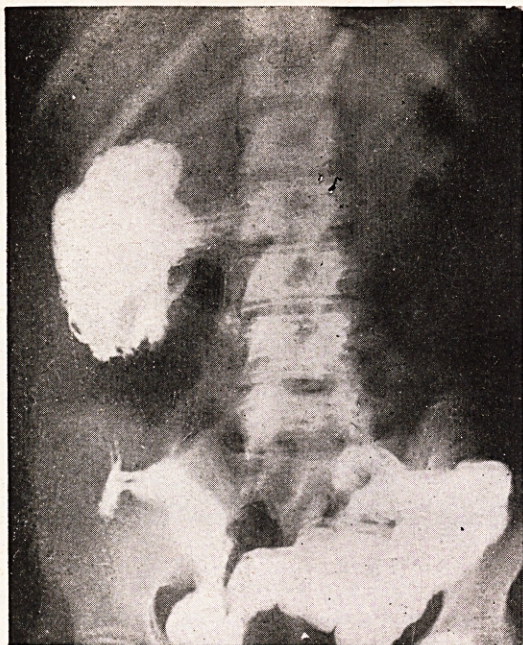


Fig. 6.

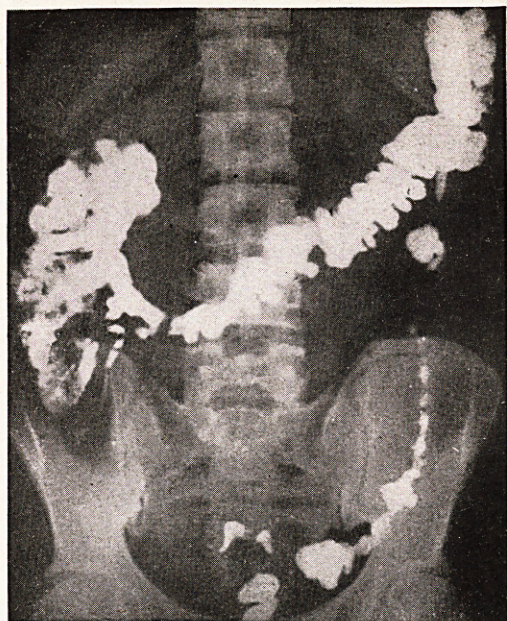


Fig. 7.

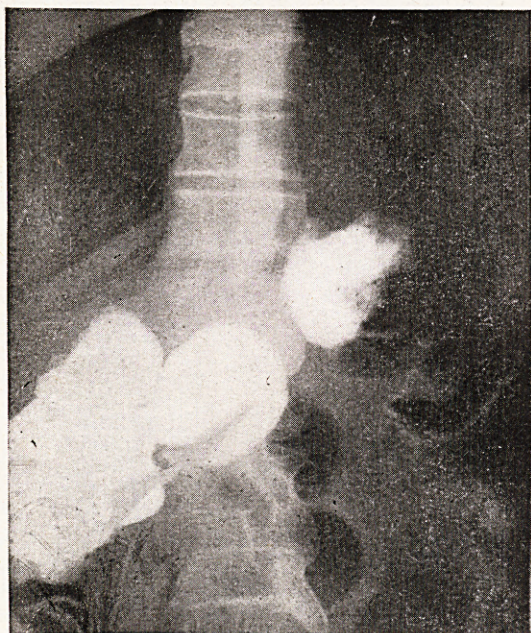


Fig. 8.



Fig. 9.

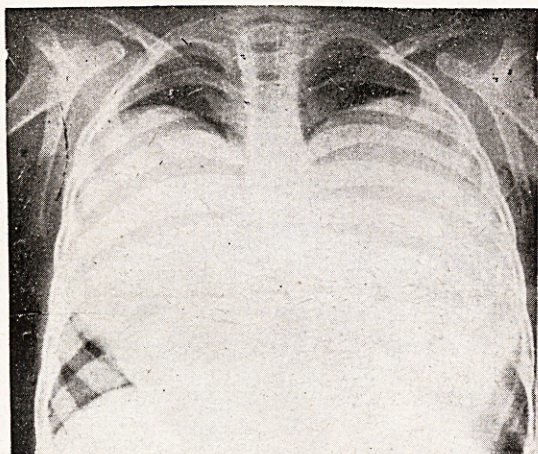


Fig. 10.

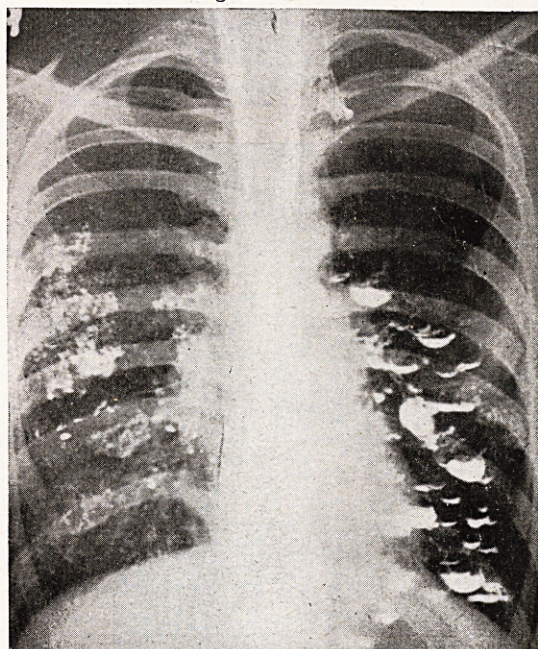


Fig. 11.

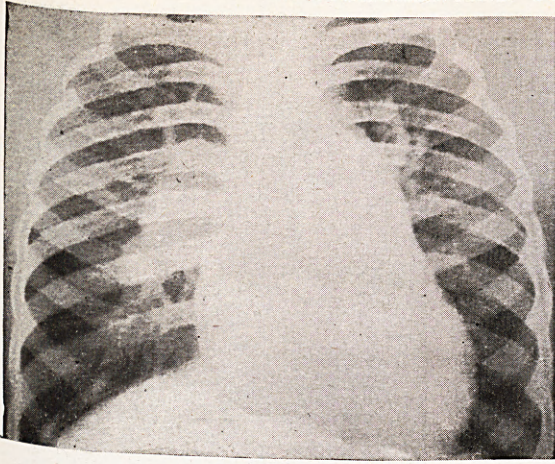


Fig. 12.

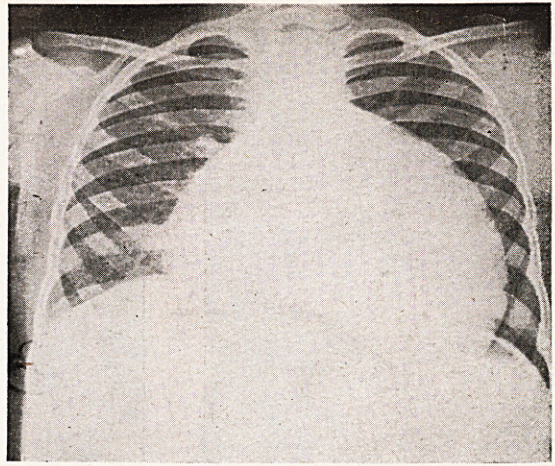


Fig. 13.

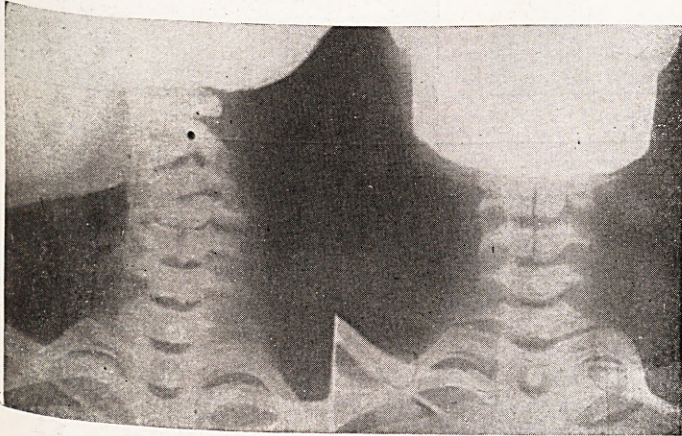


Fig. 14.

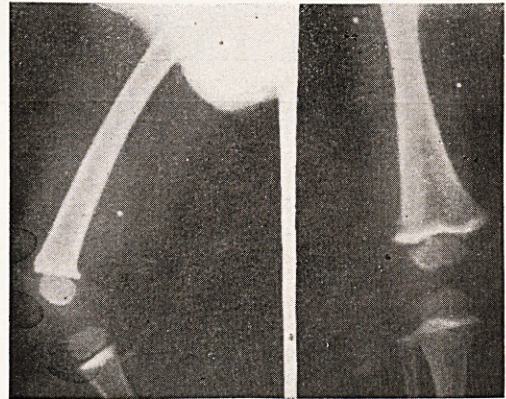


Fig. 15.

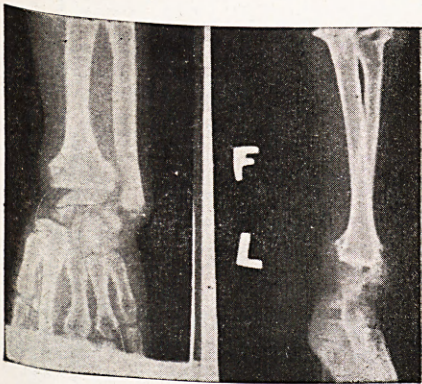


Fig. 16.



Fig. 17.



Fig. 18.

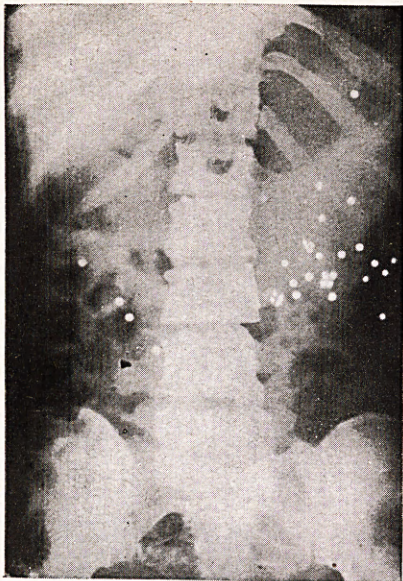


Fig. 19.



Fig. 19a.



Fig. 20.

SOMATIC TÆNIASIS (*SOLIUM CYSTICERCOSIS*) : R. SUBRAMANIAM. PAGE 64.

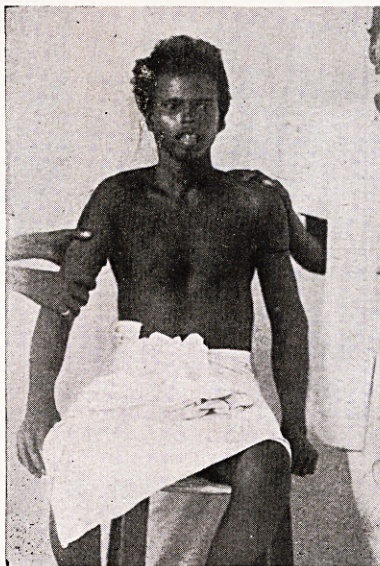


Fig. 1.—Showing muscular build of the patient.



Fig. 2.—Section of cyst. Low power.



Fig. 3.—Section of cyst. High power.