

round them. They may be few in number but are invariably present. Polynuclear cells are, as a rule, absent (*vide* plate).

Total number of cases examined ..	367
Characteristic cells present ..	359
Characteristic cells absent ..	8

They were present in 98 per cent. of the cases. Where they could not be seen they were either obscured by fæcal debris or were disintegrated by putrefactive bacteria in a stale specimen.

CONCLUSIONS.

1. In a total of 495 cholera cases diagnosed bacteriologically comma-vibrios were found microscopically in 84 per cent. of the stool films.
2. In a total of 496 cholera cases 92 per cent. showed definite concentration of blood. In 6 per cent. of them the concentration was indefinite and in 2 per cent. there was no concentration at all.
3. Cytological elements in the cholera stool are constant and characteristic and can be utilised as a reliable index in 98 per cent. of cases.

REFERENCES.

- Goss, M., 1923. Cholera sans Vibrios. *Trop. Dis. Bull.*, May, Vol. 20, No. 5, p. 367.
 Rogers, Sir Leonard, 1921. Bowel Diseases in the Tropics. London: Hodder & Stoughton, p. 90.

A NOTE ON THE CULTIVATION OF AN ENTAMŒBA FROM A MONKEY (*MACACUS RHESUS*).

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ON the 9th May, 1925, a monkey which was experimentally infected with *Trypanosoma evansi* in the laboratory, died. The post-mortem was done within four hours of death.

On careful examination of the contents of the cæcum for intestinal protozoa very scanty, sluggishly motile entamœbæ were seen. There was no evidence of ulceration in the cæcum or in any other part of the large gut.

Four sets of culture were made in the following media:—

1. Human blood agar slant, two-thirds of the slant being covered with Locke's solution containing egg albumen in the proportion of one egg to 1 litre.
2. Ordinary nutrient agar slant + defibrinated rabbit's blood put at the bottom of the tube, covered with Locke's solution containing rabbit's serum diluted 1 in 10.
3. Locke's solution + human serum diluted 1 in 8.
4. Row's hæmoglobin medium.

The cultures were incubated at 37°C. for 24 hours. The first two culture tubes showed a few very active entamœbæ containing numerous ingested bacteria. In the fresh state the nucleus was not visible nor could the difference between the ecto and endoplasm be made out.

In an iodine preparation, however, the ring nucleus typical of the genus entamœba was easily seen. There was no growth in the culture tubes 3 and 4. A better growth was obtained after 48 hours' incubation and some of the entamœbæ in tube 2 were found to contain red blood corpuscles.

Examined on the fourth day the culture showed no entamœbæ (vegetative or encysted) even after prolonged search, there being a heavy growth of bacteria, yeasts and blastocystis.

As the parasites died out so soon a systematic study of their cytological characters was not possible nor could their pathogenicity be tested. However, from the characters noted above, i.e., (i) motility, (ii) character of ecto and endoplasm, (iii) character of nucleus, and (iv) ingestion of red blood corpuscles, I am of opinion that the entamœba cultivated was *E. nutalli* (Castellani).

It will not be out of place to mention here that the writer, whilst working with Major R. Knowles, I.M.S., has cultivated *Entamœba histolytica* both from kittens experimentally infected with this entamœba as well as from the stool of a human case of amœbic dysentery with marked success, using the technique of Boeck and Drbohlar. The kitten and human strains were kept going up to the 32nd and 13th day, respectively, by repeated subinoculation at intervals of 24 or 48 hours.

REFERENCES.

- Boeck, W. C., and Drbohlar, J. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, Vol. XVIII, Nos. 5, and 6.
 Dobell, C. The Amœbæ living in Man, 1919. London: John Bale, Sons & Danielsson.

A Mirror of Hospital Practice.

NOTES ON TWO CASES OF ENCEPHALITIS HÆMORRHAGICA AFTER NOVARSÉNOBILLON ADMINISTRATION.

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Case No. 1.—Died. R. R. C., aged about 27 years. Onset; on the third afternoon after his second injection of novarsenobillon (dose reported to have been 0.6 gm.), the patient felt unwell and feverish, with severe headache. He went to see his medical attendant, who was away from town. He came back, took some quinine and his usual meal and retired to bed early. At night his headache was intense with high fever (temperature not taken), his speech incoherent and he was delirious. In the early hours of the morning he had epileptiform convulsions and rapidly passed into a state of unconsciousness. The jaws were tightly locked and he passed urine involuntarily.

When I saw him in the morning he was unconscious with temperature 102°F., pulse 120,

respiration rate 40 per minute; blood pressure high; tremor in the muscles of the upper and lower extremities; the jaws alternately locked and relaxed; the deep reflexes absent; the eyes staring; conjunctivæ intensely congested; the pupils contracted and but sluggishly reacting to light. The urine shewed albumin in moderately large amounts.

Treatment.—Rectal enemata were given, together with chloral and bromides rectally every six hours. An icebag was applied to the head and nape of the neck. Lumbar puncture was advised but was strongly objected to by the relatives, as also was venesection. In the afternoon the patient's condition was much the same; temperature 99.8°F., pulse 90, respiration 24. In the evening a *kaviraj* was called in, and he died at about the 32nd hour after the onset of symptoms.

Case No. 2.—Recovered. A. K. P. of Baraidala, aged 30 years. On the fourth afternoon after his second injection (dose reported to have been 0.6 gm.), was taken ill. His symptoms were practically identical with those of the first case, but there was no fever; temperature 98.6°F., pulse 108 and of low tension, respiration rate 42, with Cheyne-Stokes breathing.

Treatment was as in the first case, the relatives having refused lumbar puncture and venesection. He recovered partial consciousness in four days and was fully conscious in ten days.

REFERENCES.

1. *Medical Research Council, Special Report Series, 1922, No. 66.*
2. *Medical Annual, 1924.*
3. Colonel Harrison, 1921, *Venereal Diseases.*

A CASE OF RIGHT-SIDED PLEURAL EFFUSION EXTENDING INTO THE EPIGASTRIUM.

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A MAHOMEDAN woman, aged 26 years, married, was admitted to the Jamshedpur (Tata's) hospital on 15th February, 1925, complaining of severe pain and a swelling in the upper part of the abdomen, with difficulty in breathing and severe paroxysmal dry cough. The cough began after the onset of the pain. She could not say definitely whether the pain or the swelling began first.

Previous History.—She says she never had any chest or abdominal trouble previous to this. She was leading a healthy life up to the onset of the present illness. She has had no children and there was no menstrual trouble, her periods having been regular. She had no venereal disease, neither had her husband had any to the best of her knowledge.

Present Condition.—She looked rather thin and anæmic. The conjunctivæ were pale and there was no jaundice. The face looked anxious

and there was dyspnoea. Her sleep was disturbed owing to the severe pain in the epigastrium. The pulse was 120 and of low tension. Respiration was difficult and 32. The temperature was subnormal (96°F). *On inspection* the chest looked more full on the right side and its mobility was impaired. There was no œdema of the chest wall. On percussion the right side of the chest was woody dull from below the clavicle right down to the costal arch.

On auscultation, the breath sounds were markedly diminished and ægophony was heard at the upper part of the right chest.

Heart.—The apex beat was outside the left nipple line, otherwise the heart was normal.

Abdomen.—There was a round, soft swelling of cystic type of the size of a small bael fruit in the epigastric region. It was ill-defined and dull, and the dulness merged into that of the right side of the chest. No thrill could be elicited over the tumour. It was tender and painful. Over the tumour there were marks of the counter-irritation which these Indian women employ for the relief of pain. The spleen was enlarged. The liver margin could not be felt owing to the pain, but the abdomen was tender along the costal margin on the right side of the tumour. The abdomen was normal elsewhere. The bowels were constipated, not having moved for the last three days. The urine was normal, no albumen being found, but the quantity of urine, according to her statement, was diminished.

The blood was not examined and an *x-ray* photograph could not be taken owing to lack of apparatus.

Diagnosis.—There was no doubt about the collection of fluid in the right side of the chest. The difficulty in diagnosis was the nature of the lump in the epigastric region. It might have been a hydatid cyst, an enlarged gall bladder, a subphrenic abscess, a cyst of the lesser omentum, or a pancreatic cyst. As she had great dyspnoea which was to a great extent due to the collection of fluid in the pleural cavity it was decided to aspirate her first. This was done on 16th February, 1925. Two pints of straw-coloured serous fluid came out. During aspiration it seemed that the swelling in the epigastric region went down a little. She then immediately began to cough violently and the cannula was withdrawn. After aspiration she seemed a little better, the dyspnoea also seemed less. The next day she felt better and said the cough was less, but the epigastric swelling looked just as big as before the aspiration. This apparent diminution of the swelling during aspiration gave me the clue that the swelling in the epigastrium might be an extension of the contained fluid within the pleural sac. On 20th February, 1925, she was again aspirated and three pints of fluid were taken out, and with this the epigastric swelling went down markedly to a great extent and she felt very much better.