

been admitted, of which two were very ill indeed. Under creosote, three have done well. The fourth is still dangerously ill with high fever, delirium and toxæmia—one of the worst cases I have seen. However, I am sure that were it not for the creosote treatment this man would now be dead. I hope to pull him through.

Territorial training is now in progress, and Reservist training begins in March. Should the results of creosote treatment continue to be as favourable as heretofore, a further communication on the subject will be made.

Meanwhile, I can heartily recommend this simple and inexpensive procedure to those who have to tackle the king of destroyers.

NOTE ON A NON-MANNITE-FERMENTING ORGANISM RECOVERED FROM TWO CASES OF DYSENTERY.

BY CAPTAIN G. T. L. ARCHER,

Royal Army Medical Corps.

THE organism which is the subject of this note was isolated from two cases of dysentery which occurred in Wellington, India, in 1930. As it resembles, yet differs from, both *B. dysenteria* Shiga and *B. dysenteria* Schmitz, it is thought that a brief description of its characters may prove of interest, and possibly of value to others who are working at this subject.

Both cases presented the usual clinical features of bacillary dysentery.

Microscopically the exudate was of the "indefinite" type. The organism was in both cases isolated early in the disease. In the second of the cases an amoeba was seen on one occasion, but as this did not contain erythrocytes, and as subsequent examinations were negative, it was not considered to be *E. histolytica*.

As the organisms from the two cases were identical in their biochemical and serological characters, they will be named in this note by the laboratory index number of the first, viz., J.L.

MORPHOLOGICAL AND BIOCHEMICAL CHARACTERS.

Nature of organism	Size	Gram's stain	Lactose	Glucose	Mannite	Dulcitate	Indol
Non-motile bacillus	2 to 4 μ by 0.4 to 0.6 μ	Neg.	No change	Acid	No change	Acid after four days	Neg.

J.L. therefore differs from *B. dysenteria* Shiga in that it ferments dulcitate, and from *B. dysenteria* Schmitz, in that it ferments dulcitate and fails to produce indol in peptone water.

SEROLOGICAL REACTIONS.

The serum of the patients gave the following results :—

	Homologous organism	<i>B. dysenteriae</i> Schmitz	Other organisms of dysentery group
Serum of first patient	Not tested	1/50	0
Serum of second patient	0	1/250	0

Homologous serum and diagnostic high titre sera acted as follows :—

	J.L.	<i>B. dysenteriae</i> Shiga	<i>B. dysenteriae</i> Schmitz
Homologous serum (J.L.)	1/1000	0	1/25
Anti-Shiga serum	0	1/500	—
Anti-Schmitz serum	0	—	1/500
Anti-Schmitz serum absorbed with J.L. ..	0	—	1/500

Apart from the rather surprising fact that the serum of both patients contained agglutinins for *B. dysenteriae* Schmitz, there appears to be no serological relationship between J.L. and Shiga or Schmitz.

ANIMAL INOCULATION.

A rabbit inoculated with a living emulsion of J.L. in saline died after five days. No ulcerative lesion was found in the intestine and the organism was not recovered from the heart or liver.

One of two rabbits injected with a killed emulsion of J.L. died two days after inoculation.

A rabbit fed with J.L. showed no symptoms of any kind.

A filtrate of a broth-culture of J.L. (N.B., this experiment was made recently, and the organism had passed into the "rough" phase) produced well-marked toxic symptoms in a rabbit when injected intravenously. A second rabbit inoculated with filtrate plus specific anti-serum was affected to a much less degree. A third which received plain broth showed no symptoms at all.

CONCLUSION.

So far as I am aware an organism having these characters has not previously been described. Although the above experiments in no way prove its pathogenicity to man, it seems possible from its resemblance to other well-known types that this organism may have some connection with the dysenteric condition from which the patients suffered.

P.S.—Since writing this note attention has been drawn to the biochemical resemblance which this organism bears to the "Newcastle" bacillus described by Clayton and Warren (*Journal of Hygiene*, vol. xxviii. p. 355). On no occasion, however, did J.L. produce gas in either glucose or dulcitate.