The condition was evidently a thin-walled pyonephrosis and a piece of the wall was removed for microscopy. The patient's condition was poor and nothing more radical than drainage was considered justifiable. A large drainage tube was introduced into the kidney retroperitoneally via a counter-incision in the iliac fossa. The para-median incision was closed with a small tube in the cave of Retzius. He was given a pint of blood and 9 pints of intravenous saline in the course of the next forty-eight hours and has made a good recovery.

If his general condition improves and a fistula persists, it may be possible to undertake a subcapsular nephrectomy at a later date.

AN ENTERIC-LIKE INFECTION DUE TO B. FÆCALIS ALKALIGENES.

BY MAJOR C. RAEBURN,
Royal Army Medical Corps.

B. Fæcalis alkaligenes is an organism commonly found in human faeces and has in the past been held responsible for infections of enteric type. (Petruschkv [1] (1896), Hirst [2] (1917), Khaled [3] (1932)). In 1935 Nyberg [4], doubting whether there was such a bacterial entity, carefully analysed a large number of strains and gave data for two main groups, the first a bacillus and the second a vibrio. The bacillus possessed flagella but was either feebly motile or non-motile. It gave no fermentation reactions, produced no indol and did not alter milk. The vibrio was actively motile and slightly alkalinized dextrose media. This advance in classification unfortunately provided no clue as to which, if either, of these organisms was responsible for the infections recorded in the literature. The textbook description is still that of a bacillus fermenting no sugar and alkalinizing litmus milk—an organism of doubtful pathogenicity.

This paper describes three cases occurring in Egypt which are adequately proved to be due to an organism very like Nyberg's Bacterium alkaligenes.

CLINICAL ASPECT.

Case 1.—An R.A.M.C. Officer. He complained one morning of intense headache, nausea and general malaise. The symptoms and previous experience of my colleague suggested alcoholic sequelæ but as his temperature was 99.2° F. he was admitted. The prominent symptoms were the very severe headache, not relieved by salicylates, marked anorexia and a remarkably furred tongue resembling chamois leather in appearance. There were no physical signs. By the third day of the illness the temperature had risen slightly and remained near 100° F. The headache improved but general malaise persisted. The general appearance suggested a mild typhoid fever. The white cell count on the third day was 6,400, polymorphs 68 per cent, lymphocytes 30 per cent, urine no abnormality, faeces a high proportion of B. fæcalis alkaligenes. Blood culture on the third day yielded B. fæcalis alkaligenes. This was considered to be a contaminant but a repeat on the sixth day was also positive. The patient's serum was tested against this organism and agglutinated it to 1:25. Although the Widal reaction has practically been abandoned it was tried as a matter of interest and was negative. The spleen was just palpable on the sixth day. The temperature was normal on the seventh day and recovery uneventful.

Case 2.—A British private. This case was also characterized by a fairly sudden onset of headache, furred tongue, malaise and mild pyrexia. It was of longer duration, fifteen days, and no physical signs developed. White cell count fifth day 7,600. Normal differential. Blood culture seventh day, B. fæcalis alkaligenes. Blood culture tenth day, B. fæcalis alkaligenes. Widal tenth day negative.

Urine negative. Faeces, a high proportion of the same organism. Agglutination of the organism by the patient's serum to 1:10 only.

Case 3.—A Sister. The onset was more insidious but still characterized by headache and a "wash leather" tongue. The temperature rose gradually to 103° F. and declined slowly, the duration of pyrexia being twenty-two days. The spleen was just palpable.
Investigations:

- Blood counts.

4th day: 19,200. Polymorphs, 76 per cent; lymphocytes, 18 per cent.
8th day: 12,800. Polymorphs, 60 per cent; lymphocytes, 30 per cent.
12th day: 14,400. Polymorphs, 64 per cent; lymphocytes, 32 per cent.
20th day: 6,900. Polymorphs, 56 per cent; lymphocytes, 40 per cent.

Blood cultures were taken on eighth, twelfth, eighteenth days. All three yielded *B. faecalis alkaligenes*. A further culture taken after the end of the pyrexia was sterile.

Agglutination of the organism by the patient's serum 1:25 partially. Widal, negative.

The Organism Isolated.—A Gram-negative bacillus. Motile but not very active. The available sugars—glucose, maltose, lactose, sucrose and mannite, were not fermented. Indol was not produced but litmus milk became slightly alkaline. In the last particular alone does it differ from Nyberg's *Bact. alkaligenes*. The colonies conformed to the usual type and need no description.

Diagnosis.—Blood culture is the one investigation of value and for an organism of this type isolation must be achieved at least twice. Several cases of this type have been rejected on account of a single isolation.

The examination of urine and faeces is of no value. It may be worth noting that I have found a persistent *Bact. alkaligenes* bacilluria on several occasions amongst the Egyptian Fellahin.

Agglutination tests are valueless. It is the exception for human serum not to agglutinate this organism. The titre may reach several thousands. The three cases described were singularly devoid of serum agglutinins—possibly an important point.

Summary.

Three cases of continued fever are described which clinically belong to the enteric type and bacteriologically are shown to be due to an organism closely resembling and probably identical with Nyberg's *Bact. alkaligenes*.

REFERENCES.


APPROATUS FOR MAKING PLASTER OF PARIS BANDAGES.

BY SERJEANT A. LEVEY,

Royal Army Medical Corps.

The following apparatus has been designed to save valuable time in the making of plaster of Paris bandages. With the use of this simple device, 100 to 120 bandages, correctly made and rolled, can be produced, as compared with 15 to 20 made by hand, in each hour.

Materials required:

1. Biscuit tin minus lid 9 inches by 81/2 inches.
2. Two pieces of wood 8 1/2 inches by 15 inches by 1 inch.
3. Two pieces of wood 10 inches by 1 1/2 inch by 1 1/2 inch.
4. Six 1 inch nails.
5. Two pieces of strong thin wire 10 inches in length.

Tools required:

Hammer, saw, jack knife.

N.B.—If biscuit tin is not available wood should be cut in ratio to size of tin available.