value of the medium to a satisfactory level at which any of the ordinary bacteria likely to be encountered will grow freely and rapidly.

The remainder of the blood is transferred to a tube and used for the carrying out of agglutination reactions.

During recent months we have obtained the series of "positive" blood cultures shewn in the table on page 558, excluding those in which organisms of the enteric group or flagellates were isolated.

Here I may say that the vigilance of the Clinical Pathologists, Drs. Khan, Chatterjee and Gupta, has been most commendable in securing cultures from febrile cases at the most opportune times. The importance to the clinicians and to the laboratory of the linking clinical pathologists cannot be overestimated.

The table indicates the nature of the bacteria secured in cultures of the blood and the conditions in which they were obtained.

The following findings seem to be of sufficient interest to be specially commented upon:—

(1) Streptococcal bacteræmia complicating typhoid fever. Of these, four cases occurred, in one of which a simultaneous culture of *B. typhosus* and a streptococcus was obtained. Two of them had severe hæmorrhage from the bowels shortly after the blood cultures were secured, but ultimately recovered.

(2) *B. pestis* bacteræmia.

Three cases were of very acute febrile seizures admitted as being of unknown origin. The positive blood cultures revealed their true nature.

In one of the cases with lymphadenitis the affected glands were cervical and there was associated a severe pharyngitis.

(3) Pneumococcus bacteræmia.

In seven of the fourteen cases the clinicians were unable to determine the existence of a localisable pulmonary lesion. The remainder were frank cases of lobar pneumonia.

(4) *B. influenzæ* bacteræmia.

This finding occurred in a case of acute pneumonitis which terminated fatally. The organism isolated from blood culture before and after death was finally decided to be the influenza bacillus owing to its markedly hæmophilic nature. It could not be grown on media other than those containing blood. A post-mortem secured on the following day in a definite case of *B. pestis* infection made this finding of particular interest. We hope to describe these two cases in greater detail at some other time.

The conclusions from these observations are fairly trite.

They undoubtedly emphasise the value to the clinician, from the point of view of exact diagnosis, of routine culture of the blood in febrile illnesses. Such cultures will often clinch a diagnosis already almost certain, elevate a suspicion, and at times again furnish a surprise.

Their interest is also frequently practical, as vaccines made from the organisms isolated have in more than one instance definitely seemed to contribute towards the recovery of the patient.

Finally, the culture medium is a very simple one for general use and one, moreover, in which even refractory bacteria grow most satisfactorily.

A NOTE ON THE CAUSE OF PEMPHIGUS CONTAGIOSUS (MANSON).

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THE skin affection described under this name by Manson is very common, especially in children, in Madras during the hot weather. Castellani, in his book on tropical diseases written in conjunction with Chalmers, and in his article on skin diseases in Byam and Archibald's "Practice of Medicine in the Tropics," describes the condition under the name pyosis and names four varieties, *pyosis mansoni, tropica, palmaris* and *corletti.* The particular variety to which we refer fits in most closely with his description of pyosis mansoni. The papular eruption, becoming first vesicular and then rapidly pustular, with the well marked reddish ring and little, if any, crust formation, is the characteristic feature of this condition. In Madras both extremities and, less commonly, the axilla are the most common sites. Contrary to Castellani's experiences elsewhere, the inguinal region is comparatively rarely affected in the Madras cases.

The cause of the affection is variously given by the authors we have mentioned. Manson-Bahr states in general terms that it is due to

"pyogenic cocci." Castellani describes the constant presence in the fluid of the blisters of a diplococcus, the aurococcus (of Winslow and Rogers, 1905), whose colonies are of a golden yellow colour and which he says is the causal organism. We have examined some hundreds of these cases and agree that this yellow coccus is constantly present, particularly in the later stages, once the contents of the vesicle have become cloudy. In earlier vesicles, however, we have with equal frequency isolated a streptococcus, growing most easily on blood or serum media but also after subculture on agar, which forms a minute clear translucent colony and we look upon this streptococcus to be the primary cause and aurococcus to be a secondary infection occurring in the more mature bullæ. With a view to determining the exact position of this streptococcus, we have lately examined in detail the organisms grown from 24 typical cases of the disease. In each case the streptococcus was found. In smears from the fluid of the blister the organism appears as a small Gram-positive diplococcus. The colonies on serum or agar media are extremely minute, clear, translucent and discrete. They are not soluble in 20 per cent. bile and they do not ferment insulin serum water. They are definitely hæmolytic when grown on human blood agar. All the strains isolated gave identical fermentations in Holman's carbohydrated medium.

Glucose	Lactose	Mannite	Salicin.
+	—	—	—

These fermentations are those of streptococcus subacidus according to Holman's classification. The mere fact that all the cases produced a similar type of organism is strong evidence that the streptococcus in question is the cause of this definite clinical entity. It has long been customary in Madras to treat the affection by means of a vaccine prepared from this organism which has gained considerable local celebrity and is known as the "pemphigus" streptococcus owing to its unfailing powers of cure. The vaccine is administered in doses of 5, 10, 15 and 20 millions at intervals of from four to six days. It is rarely however that the full four doses are required, the condition disappearing after the second or third dose with the greatest regularity.

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THE ALDEHYDE TEST IN *SCHISTOSOMUM HÆMATOBIUM* INFECTION.

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THE blood of some cases of *Schistosomum hæmatobium* infection, as diagnosed by finding ova in the urine, was available and advantage was taken of this opportunity to observe the aldehyde reaction in this disease. Nineteen cases were examined, all of whom were Mahratta soldiers. None of them gave a history of kala-azar.

Three batches of cases were tested on different dates. As there was some difference in the results of the first batch and those of the subsequent two batches, they are given in the two separate Tables, I and II respectively. In Table II it will be noted that the cases are arranged in the order of the duration of treatment and the amount of tartar emetic administered.

Three methods of the test were employed, one of which, method 1, is exactly the same as that described in a previous communication (Lal, 1923); while the other two slightly differed from the ones used before.

Briefly stated, these methods are:—

Method 1. (As originally proposed by Fox and Mackie, 1921.)

Consisted of putting a drop of serum on a clean slide and inverting it over a watch-glass containing commercial formalin. After five minutes the slide was removed and examined. All cases of opacity and "gel" formation were marked positive.

Method 2. (Modification of Napier, 1922.)

Here instead of four drops of blood being taken directly from the patient's finger at the time of the test, as done by Napier, an equal quantity of previously collected blood was put into a small test tube containing ½ c. c. of citrated saline (Formula: sod. cit. 0.5 grm., sod. chlor. 0.9 grm., and water 100 c. c.). After adding a drop of formalin, it was kept overnight at laboratory temperature. The sign + here employed indicates an opacity equal to the standard tube as described by Brown (1919). In no case was a higher degree of opacity observed; any opacity of a lesser degree was marked ±.

Method 3. The exact technique of Napier (1922) was employed, viz., 1 c. c. of serum was taken and 1|17th c. c. of commercial formalin was added. The signs used in the last column of