

Lt.-Colonel Cornwall in his original paper reported six consecutive successes with no failures. Knowles on the other hand, in his report on kala-azar in *The Indian Journal of Medical Research*, July, 1920, states that the results of peripheral blood cultures at Shillong have been very disappointing.

The method has been used as a routine diagnostic procedure in this Institute for the last four years and a considerable amount of experience has thus been gained with it. The present time has been considered a suitable one to collate our results and to form an estimate of the value of the method in our hands. The chief merit of our figures lies, we think, in the fact that our cases have been examined strictly from the diagnostic point of view. That is, we have, with one or two exceptions, received the blood of cases in which there has been some doubt as to the diagnosis at the time the blood was sent to us. The microscopic examination of the blood had failed to show any parasites and the cultivation method was then called for to aid in the diagnosis and if possible prevent the necessity for puncture of the liver and spleen. The type of case we had to deal with did not therefore err on the side favourable to success and could by no means be called selected. We hold therefore that our results give the true position of the method amongst the various means of diagnosis at present at our disposal. We have followed Cornwall's original technique very closely and we have had the benefit of the author's personal advice in matters of detail. We have been particularly careful in restricting the quantity of blood added in the first instance and have sown large numbers of tubes in each case, never using less than 2 c.c.s. of blood for this purpose. The temperature at which the cultures have been kept has never varied outside the limits of 20–22°C. The length of time the tubes have to be kept before a negative result can be returned has been laid down by Cornwall as 20 days. In our earlier cases we followed this procedure but we have found in certain instances that flagellates appeared for the first time in tubes which have been kept longer in the incubator. In one case, in fact, we have got a positive result in tubes which had remained negative up to 40th day. It may be therefore that some of our earlier cases have been returned as negative for this reason. We have made cultures from forty-nine cases in all. The diagnosis of kala-azar was subsequently changed in nine of these. The number of cases under review is therefore reduced to forty. In 34 cases blood was taken for culture once only. In the remaining 6, cultures were made on two separate occasions. The results from the whole forty cases are given in the form of a table appended below. As it was considered probable that success might have some relation to the stage of the disease, we have divided our cases according to the symptoms they presented at the time the culture was taken. Thus we have separated those cases

which have shown enlargement of one organ alone from those in which both liver and spleen were affected. We have had 10 positive results out of the total of 40 or 25 per cent. of success. Out of these our success rate for the first type of case is reduced to 20 per cent. while the combination of fever with enlargement of the spleen alone from which the majority of these cases have been drawn only yields a success rate of 16.6 per cent. Where the signs have been more marked our results have been better. The rate of success here is 28 per cent. It would appear, therefore, that there is a greater chance of success in advanced cases. This is also borne out by the fact that we succeeded in obtaining positive results in 4 out of 6 typical cases which were selected for another purpose. Cultures were made on two occasions in six of our cases. Three of these ultimately proved successful. In one a positive result was obtained on the first occasion and was negative on the second. The other two were successful on the second occasion only. Repeated cultures therefore would appear to be of value. In 5 cases liver or spleen puncture was performed in addition to culture. The smears from all five cases showed Leishman Donovan bodies. In three of these, flagellates were obtained on culture. Our results appear to show that the culture method, used purely for purposes of diagnosis and not merely as a corroborative test, gives information of value in about 25 per cent. of cases and that the more advanced the case is at the time of culture, the greater the chance of success. Repeated culture, where possible, is of value and our experience teaches us that the tubes should be cultivated for a long time before a negative result can be recorded.

RESULTS OF CULTURES.

Symptoms.	NUMBER OF CASES.			Per cent- age of success.
	Posi- tive.	Nega- tive.	Total.	
1. Fever, enlargement of spleen alone	2	10	12	Percent. 16.6
2. Fever, enlargement of liver alone	1	2	3	
3. Fever, enlargement of liver and spleen	7	18	25	28
TOTAL	10	30	40	25
Diagnosis subsequently changed	9	
			49	

A Mirror of Hospital Practice.

A CASE OF "LANGRI'S FINGER."

By G. G. LIMAYE, M.B., B.S.

I HAD a case of pneumonia in a middle-aged man, well-fed and sturdy but lean. He was a sepoy in a regiment in Mesopotamia. After the crisis had occurred, it was noticed one evening that the tips of some of the fingers of both his

hands had changed colour from normal to a slight blackish tint. Thermal and tactile sensations were present. The heart showed accentuation of the first and reduplication of the second sound. There was no thickening of the smaller arteries felt by the fingers. No history of syphilis, etc.

In two or three days' time the discolouration deepened, the affected tips were cold and a bit tough, shrunken and wrinkled. The tip of the thumb of the right hand was also included in the process. Tactile and thermal sensations were gradually being lost and the parts looked lifeless. The radial arteries were beating regularly and with the same low tension as before. The patient had rather a bad cough, but took his food well and was apparently improving. He was hopeful, too, especially on being assured that, as he had been for some considerable time detailed for duty in the "langar-khana" or cook-room, disease had brought on the burning of his fingers (due to constant lifting of hot pots, etc.), but latent for a long time!

In a week's time, most of the tips had become jet-black, as though completely charred, wrinkled, hard, and shrunken, and absolutely devoid of all sensations. He was able to grasp a cup by the palm and fingers, but could not button his shirt. It was a pity to see this living man with dead finger-tips! Not all the phalanges were involved, the tips of most fingers and middle phalanges of some. In the case of the right thumb only the distal phalanx was affected.

The climate was very cold at the time, and exposed water used to freeze by morning. The patient was, however, comparatively well-protected from cold and drafts, that is, considering the exigences of active service in an out-of-the-way station.

I could not do anything for the unfortunate soldier beyond symptomatic and common-sense treatment, and the patient died soon afterwards.

I do not think it was frost-bite; I do not think it was embolic gangrene, due to endocarditis, as there was neither fever nor any sign of valvular affection. What I do think is that it was probably a gradual failing of the circulation, though I cannot say why the process did not start in the toes first. But this was perhaps because the feet were always properly covered, whereas the hands could not, for obvious reasons, remain so.

Such a phenomenon being unusual I have permitted myself to report it to the profession.

ACUTE "KODON" POISONING.

By ANAND SWARUP, M.B., B.S.,

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On the night of March 4th 1922, four cases of acute poisoning were brought to Tilhar dispensary in the district of Shahjehanpur by the police. There was an old woman aged 50 years, two little boys aged 9 and 12 and a man of about 22. All were unconscious at the

time. The pulse in every case was quick and small, and the extremities were cold. The woman and one boy could be roused on shouting, whereas the other two and particularly the young man were absolutely unconscious and did not respond to any stimulus. The stomach was washed out in each case, but great difficulty was experienced in the case of the young man, in which case a mouth-gag had to be applied before the stomach tube could be passed. Particles of food of a blackish colour were removed from the stomach. Three recovered consciousness within an hour, but the fourth patient, the young man, baffled all efforts. After the washing out of his stomach he opened his eyes and began to struggle, but was otherwise unconscious of his surroundings. He could not sit or stand, and resisted interference so that when an attempt was made to give him a dose of stimulant mixture he clenched his teeth and his limbs became stiff when an attempt was made to move them. On the other hand if he was left undisturbed he lay flat on his back quite calm and unconscious. He was then left to himself in a bed, well covered with blankets, a dose of stimulant mixture was administered by the help of the gag. Hot tea was given after some time. The patient rallied in the morning. His pulse became much better, and he could be roused on shouting and gradually began to answer questions.

The three other patients who had become conscious continued to vomit for several hours, and showed a continuous shaking of their bodies, particularly of the upper extremities as if they were shivering from cold, and this continued even when they were well covered with blankets and also later on when they were sitting in the sun.

There was no diarrhoea, thus showing absence of intestinal irritation. The pupils were examined by daylight. They were normal as regards size and reflexes. The respiratory system was not affected.

It appeared from the statement of the patients as well as from the police report that the patients had taken that evening bread made from some flour of "Kodon." About an hour and a half after taking their meal they were attacked by vomiting and giddiness and then all became unconscious.

The symptoms were quite distinct from those of *dhatūra* and opium poisonings, inasmuch as the pupils were normal, there was no dryness of the throat and the respiration was unaffected. The nervous system and the cardio-vascular system were markedly affected with some irritation of the stomach, but not the intestine, thus differing from ptomaine poisoning.

My attention was first directed to this kind of poisoning by a landholder at Tilhar. On the 27th of February 1922, he told me that all the members of a family in one of his villages were