where it is undesirable that patients should occupy beds unnecessarily long. The course of injections could be given and the patient could then be sent home to complete his convalescence.

With regard to the concentrating of the course of treatment it is obvious that it is quite a safe procedure, there is every indication that equally good results are obtained, and it seems possible that in "resistant" cases some definite advantage may be gained.

SUMMARY.

An attempt has been made to concentrate the course of treatment of kala-azar. The drug which has been used is Neo-stibosan, (No. 693), a pentavalent antimony compound of low toxicity and high curative value. Eight injections at intervals of one day have been given, so that the full course is completed within a period of a week. The results of this course of treatment in 28 cases of kala-azar have been very satisfactory and indicate that a high percentage cure-rate can be anticipated.

This drug can be given safely in a 25 per cent. solution; this makes it possible to use a small hypodermic syringe even for the maximum dose.

The drug is equally efficacious when given intramuscularly; 0.3 gramme of a 25 per cent. solution, which is isotonic with the tissues, gives rise to less pain than a similarly given injection of 0.063 gramme (1 grain) of emetin.

Our thanks are due to Dr. S. N. Bhattacharyya, M.B., House Physician to the Carmichael Hospital for Tropical Diseases for assistance in giving the injections and to the Havero Trading Co., 15, Clive Street, Calcutta, for a generous supply of Neostibosan.

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A Mirror of Hospital Practice.

AN INTERESTING CASE OF MALARIA.

By S. M. RABBANI, M.B., B.S.,

Kampala, Uganda.

ON 11th March, 1928, I was called to see a patient, a Punjabi, aged 32, occupation—mason in the P. W. D. At the time of examination the patient had a temperature of 104°, was restless, had a severe headache and marked bilious vomiting, so much so that not even a drop of water could be retained. He told me that the fever came on in the morning at about 10 a.m. with shivering. The spleen was just palpable. A blood film was taken and showed the presence of subtertian parasites.

The patient was a well-developed muscular person, had been for eleven years resident in Uganda and had had three previous attacks of severe malaria, the last one being in 1926. He was living in a well-ventilated newly-built pucca house outside the main town in a comparatively healthy locality. He gave no history of any venereal disease.

Treatment.—An intramuscular injection of 9 grs. of quinine bihydrochloride was given in the gluteal region, and calomel in fractional doses to stop the vomiting followed by magnesium sulphate the next morning.

12th March.—Vomiting abated; patient could take milk and soda, headache still present, had a free motion, temperature 103.8°. He was put on a diaphoretic mixture, but in the afternoon the temperature rose to 105°. Another intramuscular injection of quinine was given, and an ice bag was applied to the head.

13th March.—Headache less, patient felt somewhat better, temperature 102°. He was given 30 grs. of quinine bisulphate in mixture form, but vomited the mixture every time. Temperature in the afternoon was 103°, and another injection of quinine was given.

14th March.—Morning temperature 102.5°. another blood film was taken, but this time no parasite could be detected, nor did I find any other organism. I decided to give quinine intravenously, accordingly 7½ grs. of quinine bihydrochloride diluted with 10 c.c of water was given intravenously. The temperature fell to 100° in the afternoon and the patient felt much better; headache disappeared.

15th March.—Morning temperature 101°, patient feeling better, had a good sleep last night, bowels moved all right. Patient was put on liquor arsenicalis with mist. cinchona co. In the afternoon I was not called to see the patient and so temperature was not taken.

16th March.—Morning temperature 102°, previous day's mixture was again ordered, but temperature in the evening shot up to 104°.

17th March.—Morning temperature 102.4°.

In the *American Journal of Tropical Medicine* 1925, Dr. Brosius had reported excellent results in the treatment of persistent cases of malaria with neosalvarsan. Accordingly, I gave 0.3 gramme of neosalvarsan

intravenously and the temperature fell to normal after 8 hours. The patient made a rapid convalescence and reported himself on duty on the 22nd.

The point about this case is the resistance of malarial fever to quinine and the rapid yielding to neosalvarsan.

A CASE OF ACUTE YELLOW ATROPHY.

By CAROL E. JAMESON, M.D.,
Missionary Medical School Hospital, Vellore, N. Arcot.

THE patient, a widow aged 55 years, entered the hospital with a chronic inflammatory mass of many years' standing and a foul smelling leukorrhœa. She had been treated elsewhere with Sulfarsenol for syphilis and we discovered a slightly positive Wassermann reaction. Cervical smear was positive for gonococci. Hysterectomy with removal of adnexa was advised, but at operation, on separation of coils of bowel from the uterus, free pus was encountered in the pelvic cavity and an extensive yellowish white slough. This was removed as far as possible with very little manipulation or contamination of the abdominal cavity and the wound was closed leaving a rubber tube drain. The patient was in excellent condition for about forty hours when her pulse became feeble and she became semi-comatose. There was no distention and very little abdominal pain, but a partial suppression of urine. On treatment with glucose, fluids, and alkalis she improved very much, regained consciousness and took her food well. The urine, which was normal before operation except for a trace of albumen, was full of hyaline and granular casts, bile, acetone, and diacetic acid. The fæces were pale, straw-coloured and curdy. Jaundice and restlessness, which became at times a marked delirium, developed. The temperature went up to 103° every two or three days. Her general condition improved considerably on the ninth and tenth days. Some of the urine was passed in bed and could not be measured, but approximately thirty ounces was passed in the bed-pan during the day and this was normal except for bile and a trace of albumen. The tongue had a thick brown coating and the lips were covered with sordes. She continued after this in a typhoid state, progressively worse with a noisy delirium, alternating with a semi-comatose condition until her death, the thirteenth day after operation.

Only a partial autopsy was possible. This showed the liver to be less than one-third its normal size, up against the dome of the diaphragm, and bright yellow in colour with small red spots. The consistency was moderately soft. The spleen was slightly enlarged.

Microscopic examination showed extensive fatty degeneration of the liver with the shape and outline of the cells lost in most places, and spots of necrosis; also well marked pigmentation.

The chloroform must have been the main factor, and the syphilis possibly a contributing factor in this case of acute yellow atrophy of the liver.

A CASE OF SERIOUS VASO-MOTOR DISTURBANCE AFTER AN INJECTION.

By U. TRAVATHAM, L.M.P. (Mad.),
Physician and Surgeon, Wakema, Burma.

A YOUNG lady, aged about 20, was under my treatment for chronic gonorrhœal rheumatism. My usual treatment for such cases is to give a combined course of mixed gonococcal vaccine (Gonorgin) and contramine intramuscularly. A course of vaccine consists of six injections given twice weekly in graded doses; the contramine is given weekly, intramuscularly, about 3 times.

Contramine is an organic compound of sulphur whose composition is diethyl-ammonium-diethyl-dithio-carbamate. At present it is supplied in the form of solution for ready use, in 1 c.c. and 2 c.c. ampoules. According to the directions, I used to give 1 c.c., which is 0.125 grammes, intramuscularly, as the initial dose. I take the necessary precautions for an intramuscular injection by giving it deeply into the muscle, the needle being always inserted first to see that it is not in the blood-vessels. Then the syringe is attached to the needle with the solution and injection made slowly. The patients usually complain of little pain at the time and nothing afterwards. But the case of interest is that of the young lady above referred to. She had had about two injections of gonococcal vaccine already. I gave her one injection of contramine. I gave her the usual dose of the solution, namely, 1 c.c. intramuscularly, taking all the necessary and usual precautions. The injection was given at about 8 a.m. in my dispensary. She went home afterwards presumably quite all right.

At about 10 a.m. she took her diet as usual. Half an hour after she got suddenly giddy and began to pass three or four watery motions, spitting a lot of saliva, and passed into a state of coma.

The relatives came to me in a great hurry and explained to me what had happened. I hurried to the patient's house at once and examined the patient thoroughly. She was unconscious and her breathing was very hard. Her pulse was very slow and weak, about 50 per minute. She was sweating profusely and saliva was coming out of her mouth profusely. I was much alarmed to see the symptoms of the patient. I have never had any such experience in such a case of contramine injection. I immediately gave her 0.5 c.c. of