Van den Bergh reaction negative. Icterus index 6. Kahn test negative.

Stool examination did not reveal any abnormality on repeated examination and no ova could be seen by concentration method.

Urine examination showed a trace of albumin and a few pus cells. Gastric analysis showed acid curve within normal limits.

Treatment and progress.—For about 10 days before her admission in the hospital she was taking ferri et ammon citrate, 90 gr. a day in three divided doses, vitamin B complex and ascorbic acid tablets by mouth, and whole liver extract (10 U.S.P. units) intramuscular injections on alternate days.

A mixed diet rich in proteins was given and in addition protein hydrolysate was given, one ounce daily by mouth. These were continued for a week after admission in the hospital.

Her temperature varied between 97.4° and 100°F. during the first 10 days in hospital but subsequently remained within normal limits. Œdema of the legs subsided gradually and disappeared completely after 2 weeks. Her ascitic condition improved slowly and disappeared clinically after 3 weeks. But her blood condition practically showed no improvement after a week's treatment in hospital. As she was having similar treatment before admission in hospital and as she had two blood transfusions about a month or so ago, it was decided to try intravenous iron injection. So liver extract injection and iron by mouth were stopped and intravenous injections of a preparation of saccharated iron oxide containing 2 per cent element iron (Iviron) were started. The preparation was diluted with 25 cc. glucose solution, 25 per cent, and was given slowly. There was no untoward reaction during or after the injection. 2½ cc. were given on the 1st day and 5 cc. on alternate days afterwards. Weekly blood examination after starting the intravenous iron showed the following :—

At the end of 1st week (350 mg. Fe.)—Hb., 30 per cent (Sahli), 4.35 gm. per cent, total rbc 1.8 million per c.mm.

At the end of 2nd week (650 mg. Fe.)—Hb., 46 per cent (Sahli), 6.9 gm. per cent, total rbc 2.15 million per c.mm.

At the end of 3rd week (950 mg. Fe.)—Hb., 58 per cent (Sahli), 8.4 gm. per cent, total rbc, 2.86 million per c.mm.

Ten days after the last injection of iron she was discharged from the hospital and her hæmoglobin was at that time 60 per cent (Sahli), 8.75 gm. per cent and total rbc were 3.15 million per c.mm. She was advised to take ferrous sulphate tablets and multivitamin tablets. Three months later she was sent for and was examined. She was found to be in a good general state of health. Her hæmoglobin had gone up to 78 per cent (Sahli), 12.3 gm. per cent and total rbc to 4.40 million per c.mm. On enquiry it was learnt that she had not taken any medicine since discharge from the hospital.

Comment.—The case described above was one of severe anæmia of dual deficiency following pregnancy and childbirth. As usual in such cases, she was treated with continued oral iron and liver extract by injection before admission in hospital for about 10 days and after admission for one week. She had two transfusions about a month before admission in the hospital. But there was no appreciable rise of hæmoglobin in the blood. In view of the encouraging result obtained with intravenous iron therapy in a previous case, the same injection was tried in this case also, and the result obtained was very satisfactory. There was a quick response and hæmoglobin continued to rise even after cessation of the injection. A subsequent follow up after three months showed a steady rise in the hæmoglobin and red blood cells in spite of the fact that the patient did not take any further hæmatinics.

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SEXUAL MALFORMATION DETECTED IN A CASE OF COPPER SULPHATE POISONING DURING AUTOPSY

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History of the case.—On 21st March, 1949, at about 6 a.m. Gayatri, a Hindu female, aged about 25 years, was admitted into the Medical College Hospital for treatment, as she was suspected to have taken copper sulphate. She expired at about 11-15 a.m. without making any statement. The cause of death was given as copper sulphate poisoning.

Post-mortem findings.—On routine external examination of the dead body, it was found to be a fairly nourished subject. Rigor mortis was present all over the body. There was cyanosis of finger nails and toe nails. Blue discoloration of the gums and tongue was seen.

On further examination of the external genitals neither vaginal opening nor clitoris was found; only very rudimentary labia minora were noticed. Labia majora were well developed, urethral opening was present in the usual place. Rectal opening was found below and behind the urethral opening. Breasts were moderately developed with small but prominent nipples.

On opening the body, the following conditions were noticed internally :—

1. *Blue discoloration* of the mouth, pharynx, larynx and trachea as well as œsophagus was seen.

2. *Lungs*—both congested.

3. *Heart*—weighed 8 oz.; both sides of the heart were full of clotted blood.

4. *Stomach* (8 *oz.*)—blue discoloration of the whole of the stomach was seen. Gastric mucosa was thick and stained blue. It contained 2 ounces mucoid fluid with a blue colour.

5. *Liver* (4 *lb.*)—enlarged and soft.

6. *Kidney* (5 *oz.*)—there was only one kidney on the right side, which was congested, cystic and irregular in shape.

7. *Internal organs of generation*—no uterus was found. There were two ovaries with long fallopian tubes.

8. *Brain* (2 *lb.* 4 *oz.*)—congested.

Pathologist's report.—Ovaries with fallopian tubes were sent to Pathology Department for preparing micro-section and determining the true nature of these structures. Section showed (*i*) ovarian structure with follicular cast and corpora albicantia; (*ii*) a fibro-muscular tissue without any endometrium in the tube.

Chemical examiner's report.—Copper sulphate was detected in the stomach and its contents as well as in the liver and kidney.

Coroner's inquest—revealed that this was a case of suicidal poisoning.

Discussion.—This is a case of sexual malformation. Externally she had all the sexual features of a female, including moderately developed breasts and normal labia majora; but the labia minora were only rudimentary and vagina as well as clitoris were entirely absent.

Internally she had no uterus, the structures found in the pelvic cavity revealed, on micro-section, the presence of a fibro-muscular tissue without any endometrium, which appeared to be a precursor of the uterus. The ovarian structures with follicular cyst and corpora albicantia were also found.

From these findings, both external and internal, it is apparent that the woman knew that she was not in a position to perform any sexual act due to physical malformation of her genitals, though she had all the general feminine characteristics including enlarged breasts; hence she had no charm for life.

She might have brooded over this sexual impotency for a long time and ultimately her mind was unbalanced. Then in a temporary fit of insanity she committed suicide by taking copper sulphate.

As regards choice of copper sulphate as a suicidal poison, the intending suicide seems to be under the impression that this poison puts an end to life without causing suffering. In Bengal, copper sulphate is selected by females generally for committing suicide. All the 5 cases of copper sulphate poisoning—in my series of cases of suicidal poisoning in Calcutta during the period 1942 to 1945—were found to be females.

A CASE OF RHEUMATOID ARTHRITIS TREATED WITH ACTH

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and

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History.—An Indian female patient, aged 41 years, was admitted to the hospital attached to the School of Tropical Medicine with a history of pain, swelling and stiffness of the joints for the last ten years. She had been operated for tonsillectomy in 1941 and one month after this she was ill with high fever, anorexia and neuralgic pains in the left leg and foot. This condition persisted for three months after which the intensity of pain diminished. Subsequently she used to get frequent attacks of pain in the wrist, interphalangeal, knee and ankle joints on both sides, and the small joints of feet on both sides were similarly affected after a time. The pain gradually increased in severity and limitation of movements and swelling of the joints were added to it. Before her admission to hospital both walking and use of hands were very much limited and caused great pain and difficulty and at times she was completely crippled and confined to bed. The temperature varied from 99°F. to 102°F. She had lost her appetite and become pale, emaciated and very weak. For two years during 1945 to 1947 she used to get attacks of spasm involving muscles of the whole body with difficulty in breathing. For the last eight months she was given pethidine and later morphine for relief of the excruciating pain. Most of the time she was taking 3 injections daily and had apparently developed drug addiction.

Past history.—From her childhood she used to suffer from frequent attacks of tonsillitis with cough and fever. She had typhoid complicated with meningitis at the age of 10. At the age of 14 she suffered from tuberculous adenitis of cervical and axillary lymph glands and this continued for 7 years with suppuration and sinus formation.