Acute Haemolytic Anaemia following Phenothiazine Therapy

The treatment of threadworms by phenothiazine (thiodiphenylamine), as first suggested by Manson-Bahr (1940), has become increasingly popular. His series of recorded cases consists of 9 patients who were treated without any ill effects and apparently cured. DeEds, Stockton, and Thomas (1939) quoted 19 cases which were so treated; of these, 3 developed varying degrees of anaemia, the red cells in one falling to 1,500,000. Finally, Hubble (1941) reported 3 further cases of anaemia occurring in 28 patients treated with this drug; although the anaemia was not of a severe degree it was considered that there was also a certain amount of liver damage. In none of the above patients was the condition of a very serious nature, but the following case report shows the dangers which are attached to the use of this drug.

CASE REPORT

A girl aged 7 was admitted to St. Thomas's Hospital on December 16, 1941, with a history of headache and jaundice for two days. Both the patient and her sister, aged 10, had been taken to their doctor with a complaint of threadworms. The children were given a course of phenothiazine comprising 1 gramme twice daily for five days, a total of 10 grammes each. On the last day of treatment the younger child complained of headache, vomiting, and loss of appetite. Two days later she collapsed and was found to have a rapid pulse and a slight degree of jaundice. During that evening she became delirious and very pale. The urine was dark and the stools were of normal colour.

On admission the temperature was 100.2° and the pulse 144. The patient was distressed, pale, jaundiced, and dyspnoeic. Physical examination was otherwise negative, there being no detectable enlargement of the liver. The urine contained much bile and a trace of albumin. A full blood examination was not carried out at this time, but the haemoglobin was 42%. A transfusion with stored blood was immediately started, a total of two bottles being given over a period of about thirty hours. This was followed by 1 pint of 5% dextrose. At this stage the general condition was much improved, the patient taking fluids well.

On December 17 a blood examination showed: red cells, 4,090,000 per c.mm.; haemoglobin, 74%; colour index, 0.9; white cells, 18,600 per c.mm.—polymorphs 79%, lymphocytes 11%, large hyalines 6.5%, eosinophils 2%, basophils 0.5%, metamyelocytes 1%. The normoblasts were equivalent to 6% of the leucocytes. The reticulocytes numbered 2.8% of the red cells. The icteric index was 17.

No further treatment other than iron was given, recovery being uneventful. The patient was discharged on December 22, at which time she was well, apart from a slight degree of jaundice. On this date a blood count showed: red cells, 4,210,000 per c.mm.; haemoglobin, 78%; colour index, 0.93; white cells, 9,440 per c.mm.—polymorphs 55%, lymphocytes 31%, large hyalines 11%, eosinophils 3%.

No threadworms were seen while the patient was in hospital. It would seem that the patient's sister suffered from a very similar but much milder attack. She, too, has made a complete recovery.

Comment.—In reconsidering the published cases in which phenothiazine has been used it is seen that out of 58 patients so treated no fewer than 8 have shown some form of toxic reaction, at least one of which has been severe enough to require active treatment. Such a high incidence of toxicity—namely, over 13%—can hardly justify its use, and it is hoped that its dangers may be more widely appreciated.

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Reviews

A HISTORY OF PHTHISIS

The Story of Clinical Pulmonary Tuberculosis. By Lawrason Brown, M.D. (Pp. 411. \$2.75 or 15s.) Baltimore: The Williams and Wilkins Company; London: Baillière, Tindall and Cox. 1941.

Dr. Lawrason Brown died in December, 1937. His was a name to conjure with in the American tuberculosis world. Tuberculosis claimed him from the moment when as a medical student and patient he came under the influence of Trudeau at Saranac Lake. His personal misfortune, as someone put it, was translated by Lawrason Brown into a life of lasting benefit to mankind, and placed his name among those of the few great leaders who have inspired and guided the successful campaign for the control of tuberculosis. In 1900 he took charge of the now famous Trudeau Sanatorium, and "changed our whole conception of a sanatorium from that of a mere home where patients lived in the open air to that of a well-organized centre where patients are given the highest type of medical and social aid, and where, through constant stimulation of its staff to clinical and laboratory research, the quality of this service is undergoing continual improvement." This alone would place much of humanity in his debt; *The Story of Clinical Pulmonary Tuberculosis* adds to this debt. This is no comprehensive or "standard" history of tuberculosis, nor is it likely ever to be labelled "classical"; but its study will help to broaden and humanize the outlook of tuberculosis workers. It is not a book to read from cover to cover and put aside as a reference work that is in fact seldom referred to, but it is a volume to place on a handy shelf and dip into again and again—it will not fail to give pleasure, for the full description of "human" details carries us so effectively into each period discussed. But it should be added that the quality and style of the book are distinctly patchy. This was, unfortunately, inevitable. It had been Lawrason Brown's intention to make into a book, with the addition of other chapters, the lectures on the history of tuberculosis which he had delivered for many years to the students of the Trudeau School of Tuberculosis. Failing health prevented him from accomplishing this. Only after his death was it decided to carry out the original plan as far as possible, and Mrs. Brown undertook the task. The first six chapters, undoubtedly the best in the book, are, we are told, the lectures as he delivered them, with most of the lecture flavour removed, some rearrangement of material, and repetitive matter where periods overlap eliminated as far as possible. In three of the chapters a fascinating attempt is made to depict the visit of a tuberculosis expert to his patient at different periods—in 1700, in 1800, and in 1900. Dr. Lawrason Brown had intended to make also a tour with the expert of 1930, but this was never written.

There are chapters on "Laennec and his successors and the beginnings of early diagnosis," on early publications in Germany and Austria, on the diffusion of knowledge in England, and on diagnosis in America. This last chapter contains a great deal of repetition, chiefly long quotations from the statements of various prominent specialists concerning auscultation and percussion signs in "early tuberculosis." The chapter on diagnosis by x rays is written by Dr. Homer L. Sampson of the Trudeau Sanatorium. That on artificial pneumothorax is entirely from Lawrason Brown's notes which were to form the basis of it. They were arranged chronologically and allowed to stand practically as written. Included are also chapters on Laennec and his early writings, on the story of the stethoscope, and