of increasing tenseness and excitement she was treated from May 16, 1955, with 25 mg. of chlorpromazine hydrochloride three times daily, increased to 100 mg. three times daily until September 21, when the dose was reduced to 50 mg. three times daily.

On November 5 she looked ill and her temperature was 99.8° F. (37.7° C.). No abnormal physical signs were found. Chlorpromazine was stopped, a total dose of 41.4 g. having been given in 171 days. On November 7 she was flushed, her voice was hoarse, and she said she had a "cold." A few basal crepitations were heard in the chest. The haemoglobin was 70%, and the white blood count 1,500 (polymorphs 32%, lymphocytes 57%, monocytes 11%). Penicillin, 500,000 units twice daily, was given. Two days later she was flushed and excited, her throat was reddened, and crepitations were heard at the bases. Her temperature was 99.2° F. (37.3° C.) and pulse 72. White cells numbered 1,200 (polymorphs 34%, lymphocytes 60%, monocytes 6%). On November 11 sternal marrow puncture suggested some deficiency of the white cell series, with shift to left indicating regeneration of granulocytes.

On treatment with penicillin the patient's fever settled over the next five days. The white cells rose to 3,500 (polymorphs 63%) on November 18, and to 4,500 (polymorphs 63%, lymphocytes 32%, monocytes 5%) on December 29. The patient has regained normal physical health.

COMMENT

Agranulocytosis following treatment with chlorpromazine has been reported by Munch-Petersen (1954), Lomas (1954), Tasker (1955), Boleman (1955), Prokopowycz (1955), and Shapiro (1955). Giacobini and Lassenius (1954) reported one case among 147 patients treated, Goldman (1955) four cases in the treatment of about 1,000 patients, Barsa and Kline (1955) two cases during the treatment of 300 patients. Lomas, Boardman, and Markowe (1955) refer to seven further unpublished cases of agranulocytosis following treatment with chlorpromazine.

In the course of treatment with chlorpromazine the white blood count usually shows little change, though occasionally a slight neutropenia is found in the early weeks of treatment. Andersen (1954) reported two cases with severe but symptomless leucopenia, the blood counts returning quickly to normal when treatment was stopped.

Our first patient became dangerously ill with agranulocytosis lasting some days, but recovered after treatment. The cases previously reported have mostly been in women: a high proportion were fatal. Our second patient became ill with severe leucopenia, and there was no evidence of the "normal" response to infection which Anton-Stephens (1954) found in patients with intercurrent infection on chlorpromazine treatment. The severe leucopenia in this case might have resulted in a more serious illness had the drug been continued and no antibiotic treatment given.

These further cases suggest that the serious, and often fatal, toxic effects of chlorpromazine on the bone marrow may be more frequent than published reports have hitherto suggested. This possibly fatal complication of treatment with chlorpromazine should be recognized by those who prescribe this drug.

J. C. L. ADAMS, M.D., M.R.C.P.,

K. D. F. CORTI, M.B., B.S.,

Q. J. G. HOBSON, D.M., M.R.C.P.,
West Middlesex Hospital, Isleworth.

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Acute Hallucinatory Episode following Hexamethonium Bromide

A married woman aged 49 was admitted to the Ormskirk County Hospital on October 15, 1954, with a complaint of occipital headache and dizziness for the past two years, together with a dull ache in the loins for the last two months. The latter was improving at the time of admission. She also complained of swelling of her face each morning for the last two months, which passed off during the day. There was no previous or family history of mental disorder. The patient's mother had died aged 47 following a "stroke," the father of coronary thrombosis at the age of 75, and an only brother suffered from "blood pressure."

Examination showed her to be a pallid woman of medium height and build. The blood pressure was 260/160, and there was moderate papilloedema and some retinitis, more obvious in the left eye. The C.N.S. and other systems showed no abnormality. Total serum protein, 5.9 g.; albumin, 4.5 g.; globulin, 1.4 g.; A./G. ratio, 3.2:1. Total and differential blood count and film showed nothing abnormal. There were no casts or red blood cells in repeated urine specimens, but a fair number of pus cells were present. Albumin varied from 100 to 30 mg. per 100 ml. The blood urea varied between 45 and 55 mg. per 100 ml. A diagnosis of essential hypertension passing to malignant hypertension was made.

A trial dose of hexamethonium bromide was given on October 26—that is, 25 mg. intramuscularly—and 15 minutes later the blood pressure was 160/120. Thirty minutes later it was 190/140. The former reading was the lowest throughout the treatment. She was then placed on 50 mg. intramuscularly six-hourly and received this dosage until the morning of October 31. During this time she received 575 mg. of hexamethonium bromide, but she complained on October 27 that she had felt a loss of power in her right arm for 15 minutes. Clinical examination did not disclose any sign of a cerebral vascular lesion or other abnormality, and the treatment was continued.

On the morning of October 31 she complained that a man was going to shoot her and explained that it was rather unfair because her headaches were better. She was not distressed about this belief. The hexamethonium bromide was stopped, but in the evening she walked out of the ward in her nightdress, and when brought back informed the house-physician that she had walked out to avoid being shot. The same evening she was transferred to the mental observation ward. The next morning she stated that she had seen four cannons mounted on the walls of the medical ward, that a man had come round the ward with a gas tube and had first gassed and then cut the throats of other patients. She believed that she had spent the night in an "electric bed" because of the weird sensations in her body and that she had heard the night nurse say that she was immoral and a prostitute and also suffering from venereal disease. She became distressed on describing this, but quickly recovered. She was also convinced that somebody wanted to "get rid" of her, but could not name the person or persons concerned. There was no clouding of consciousness and restlessness, and orientation was normal. Her behaviour as regards meals, ward discipline, etc., was quite normal, and there was no sign of confusion in her speech or attitude, such as would be expected with a cerebral lesion or bromide intoxication.

She remained in this state for three days, but by November 5, although quite willing to discuss her hallucinations, she had gained partial insight into them and was shy and shamefaced when they were touched upon. The next day she was fully recovered and said, "I must have been daft, but it did seem real."

I wish to thank Dr. J. Erskine Howie, Dr. G. Sanderson, and Dr. Thelwall Jones for advice in the preparation of this report.

T. P. SMITH, M.R.C.S., D.P.M.,
Assistant Psychiatrist, Ormskirk County Hospital.