living in hotels or institutions. The incidence of vascular diseases of the nervous system in these boroughs, corrected for age and sex, is much the same as in the rest of London, but the factors mentioned in Kensington and Westminster would increase the pressure on beds, since many patients have no one at home to look after them.

Summary

A series of 315 cases of vascular diseases of the nervous system admitted to a general hospital over a four-year period are reviewed.

The diagnosis, age and sex incidence, and certain clinical features are discussed.

Evidence is presented in support of the separation of some cases with transient cerebral attacks from the cerebral thrombosis group.

The population from which cases were received is briefly described.

I am indebted to Dr. B. Gottlieb for much encouragement and advice. I thank both him and Dr. H. Gainsborough for permission to use records of their cases, and the records staff of St. Mary Abbots Hospital for much help.

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Medical Memorandum

Effect of a Barbiturate Antagonist in Chronic Barbiturate Intoxication

Chronic barbiturate intoxication may be associated with spectacular neurological manifestations which may mimic organic disease of the central nervous system. The signs observed include ataxia, dysarthria, dysdiadokokinesis, hypotonia, tremor, decrease in the abdominal reflexes, and extensor plantar reflexes. There are no sensory changes, and the deep tendon and corneal reflexes are usually unchanged unless an acute intoxication is superimposed on the chronic state (Isbell, 1950). The electroencephalogram is of great value in establishing the diagnosis, as in chronic barbiturate intoxication there is an increased number of beta waves (fast waves with frequencies of 15–30 a second), whereas in acute barbiturate intoxication large slow waves resembling normal sleep waves are seen (Isbell, 1950).

A new barbiturate antagonist, bemegride (β -ethyl, β -methylglutarimide; "megimide") has been shown to be of value in the treatment of acute barbiturate intoxication (Shulman *et al.*, 1955). The effect of this substance in a patient suffering from chronic barbiturate intoxication is shown in the following case.

CASE REPORT

A housewife aged 50 was admitted to hospital on November 28, 1955, because of a small haematemesis from a chronic duodenal ulcer.

On examination she was nervous and agitated and there was some intellectual impairment. A pronounced coarse tremor of the right hand at rest was present. The pupils reacted briskly to light and constricted on convergence; the fundi were normal; and no abnormality was found in the cranial nerves. She had nystagmus to the right, a coarse tremor of the extended arms which was more evident on

the right, a marked intention tremor of the right arm, and dysdiadokokinesis which affected both arms, the right more than the left. There was no sensory ataxia. The power and tone of the upper limbs were normal, there was no muscle wasting, but the tendon reflexes were slightly exaggerated on the right side. Sensation, superficial and deep, in the upper limbs was normal. The abdominal reflexes were present. In the lower limbs power and tone were normal. The "knee-heel" test showed slight unsteadiness in the right leg. The knee-jerks were present and equal, but both ankle-jerks were absent. The plantar reflex was flexor on both sides. Sensation, superficial and deep, was normal. No abnormality was detected in the cardiovascular, respiratory, or abdominal systems.

On close questioning it was revealed that five years previously she had been treated in a mental hospital for "nerves," and that since then she had been taking from 6 to 9 gr. (0.4 to 0.58 g.) of amylobarbitone sodium and 2 gr. (0.13 g.) of phenobarbitone daily.

Investigations.—The urine was normal. The Wassermann reaction was negative. X-ray films of the skull and chest and the E.C.G. were normal. Lumbar puncture: pressure normal; free rise and fall on jugular compression; protein, 40 mg. per 100 ml.; cells, 0 per c.mm.; Wassermann reaction, negative; colloidal gold test, 0000000000. An electroencephalogram taken in May, 1953, was normal, but the record now showed a generalized excess of high-voltage fast activity (beta waves) mixed with fairly regular alpha waves. There was also patchy slow activity over the right temporal area.

The patient was treated on a gastric regimen, phenobarbitone, 1 gr. (65 mg.) twice daily, and amylobarbitone sodium, 3 gr. (0.2 g.) at night. This large dose of barbiturate was given to prevent the delirium and epileptiform confusions which may follow abrupt withdrawal of barbiturates from chronically intoxicated persons. A fortnight after admission 10 ml. of a 0.5% solution of bemegride was given intravenously; this resulted in an immediate and dramatic improvement in the neurological signs. The intention tremor of the right arm became less marked, the nystagmus and dysdiadokokinesis disappeared. This improvement persisted for two hours, but although there was slight regression the signs were not as marked as they had been before the injection of bemegride. The next day a further intravenous injection of 10 ml. of a 0.5% solution of bemegride was given while the patient was under electroencephalographic examination. Before the injection a generalized excess of high-voltage fast activity mixed with fairly regular alpha waves was seen. After the injection, in a matter of minutes, there was a complete disappearance of the beta waves, and the record continued during the period of observation with no further abnormalities. It was noted that after the second injection of bemegride there was no reappearance of the neurological signs. The patient was discharged and her doctor was requested to supervise a gradual withdrawal of barbiturates over a period of six weeks.

My thanks are due to Dr. Max Valentine for his reports on the electroencephalograms.

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The Medical Superintendents' Association of New Zealand, at a recent conference in Wellington, endorsed a change in hospital policy for child patients. By a unanimous vote the conference approved the principle of the closest possible association between mother and child while the child is a hospital patient.