reflexes could not be obtained. On the other hand, the abdominal and cremasteric reflexes were preserved and the arm jerks exaggerated.

The post-mortem examination revealed no gross lesions in the central nervous system. The brain was small, weighing only 898 grammes, and there was some thickening of the pia mater, which, however, stripped quite readily from the cortex. Microscopically the cortex was thin, and the pyramidal cells were small, few in number and irregularly placed, those of the deep layer being no larger than those of the superficial layer; the tangential fibres were sparse and the line of Baillarger scarcely apparent; neuroglial overgrowth was seen everywhere, especially in the subpial zone. The cord showed no degeneration of fibre tracts, but considerable atrophy of the anterior horn cells. The central canal was widened throughout the length of the cord.

The author regards the phenomenon of paraplegia in flexion as due to an exaltation of the reflex automatism of the lumbosaeral enlargement of the spinal cord. It is not always associated with diminution of the deep reflexes, as in some cases these have been exaggerated. The phenomenon may be due to a variety of causes, among which irritation of the anterior horn cells should possibly be included. That it is not always associated with gross lesions of the long fibres of the cord is shown by the present case, as also by those cases which have recovered after operations for the relief of pressure on the spinal cord.

J. G. GREENFIELD.

PROGNOSIS AND TREATMENT.


This paper contains a detailed clinical account of five cases of cerebral glioma (histologically verified at operation or autopsy) which were treated with deep x-ray. All the cases were of long duration, and x-ray therapy was resorted to after surgical interference had been attempted. The results were not encouraging. The immediate effect of irradiation was, as a rule, evidence of an increase of intracranial pressure; in several instances this was accompanied by the development of fresh physical signs. In no case was any improvement noted. Microscopic examination of cases which came to autopsy showed that in one case the tumour had become necrotic and liquid. The symptoms, however, were not relieved. In other cases the irradiation appeared to have stimulated growth. Claims to successful results made by previous writers upon this subject are critically reviewed. On theoretical grounds it would appear that the glioma, on account of the specialized nature of its cells, and its inaccessibility to radical operative interference, offers the most hopeful target for irradiation. Possibly the glioma of fibrillary type may be more resistant to the x-rays than the richly cellular growth. The authors' cases appear to have been all of the former variety.) It is by no means claimed that radiotherapy will not prove of value in the treatment of these tumours. Failure in the instances so far recorded
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may have been due to imperfectly developed technique. Finally, the opinion of the authors is that under present conditions surgical intervention offers more hope than any other method of treatment, and should not be delayed for the trial of radiotherapy.

C. P. S.

Endocrinology.


It is noteworthy that tumours of the hypophysis do not always cause symptoms that are purely hypophysial, and a confusing picture may result which causes difficulty in diagnosis; the converse may also be true, for an extensive hypophysial growth may invade rather remote regions and yet not cause such symptoms as might be expected. The tumour reported by Lloyd and Grant belonged to the latter type and was of extraordinary size, measuring about 9 cm. long by 5 cm. in diameter. The microscope showed it to be an adenoma. The parts involved by it were not only the sellar and infundibular region, but the interpeduncular space, the pons, cerebellum, cerebellum and the bones of the base of the skull. There was an early right hemiparesis, which can be explained by the great size of the tumour, which caused it to press on the left cerebral peduncle. It was rather remarkable that there was no bitemporal hemianopsia, and that the growth did not cause complete blindness. There were no marked cerebellar symptoms, with the exception of a slight swaying walk, easily confused with the hemiparesis. The Fröhlich syndrome was the most reliable sign and led to the correct diagnosis.

R. M. S.

[117] Some observations on the parathyroid and its use in mental conditions.

The six patients chosen for treatment by parathyroid substance showed a common feature, viz., hyperexcitability, and belonged to the groups of manic-depressive insanity, melancholia and hysteria. Treatment is based on the following factors: (1) Parathyroid substance increases the ionic calcium in the blood, the depressent effect of calcium on the nervous system being well established; (2) parathyroid substance has a detoxicant effect which is non-specific, and tends to break the vicious circle set up by chronic toxic states; (3) an attempt is made to re-establish the sympathetic-parasympathetic balance, evidence of disturbance of which is seen in hyperexcitability and other general symptoms. The writer concludes that the results obtained encourage a continuance of the instigation. Clinical estimations of the calcium index of the blood were not arrived at, although further information is promised.

EwIS YeALLAND.