It is highly probable that taste is not localised in one single centre. A case observed by the author of this paper supports the assumption that the cortex of the insula is concerned in the representation of taste. Clinical and anatomical observations indicate that the temporal lobe and adjacent regions are closely associated with the projection fibres for taste.

**NEUROPATHOLOGY**

1. Curves typical of blastomatosis in the spinal fluid tested with the Berlin blue colloidal reaction (Curve a tipo blastomatoso nel liquor alla prova colloideale del bleu di Berlino).—V. M. Buscaino. Riv. di pat. nerv. e ment., 1933, 42, 596.

The author claims to have demonstrated a spinal fluid test for blastomatosis of brain or cord. This consists of a floccular deposit in tubes 5 and 6, or in 5, 6, or 7. He does not claim specificity for the test, but regards it as of prime importance in the diagnosis of intracranial or intraspinal pressure from blastoma of the brain, spinal cord, intrathecal nerve-roots, or meninges. These curves are not noted in pressure on the cord from blastomata or tubercular disease of the vertebral column.

R. G. G.


The principal fact which becomes apparent is that the diastase of the cerebrospinal fluid is increased mainly in patients suffering from some degenerative or inflammatory process involving the central nervous system. It is supposed that in such diseases the permeability of the meninges to this colloidal substance is increased. Available information is not sufficient to suggest that diastase subserves any useful purpose in the central nervous system, or that estimations of its concentration are of diagnostic value. Nor does it appear that there is promise that this line of research is likely to lead to results of clinical value.

C. S. R.


The colloidal gold reaction curve of ‘paretic’ type is considered a characteristic sign of general paralysis. The author of this paper has detected this
same reaction in cases in which syphilis could be excluded. The diseases were:

- Disseminated sclerosis . . . . 47 cases
- Cerebral tumour . . . . . 10 ,
- Diffuse inflammatory processes . . 3 ,
- Uaemia . . . . . 3 ,
- Polyneuritis . . . . . 2 ,
- Schizophrenia . . . . . 2 ,
- Strangulation . . . . . 1 case

The reaction was not found in cases of subacute combined degeneration, spastic spinal paralysis, tumours of the spinal cord, syringomyelia, amyotrophic lateral sclerosis, bulbar paralysis and arteriopathies of the brain and spinal cord.

M.

Arch. of Neurol. and Psychiat., 1934, 32, 763.

The author finds that the cells of the external geniculate body are not sensitive to changes post mortem when compared with other cell groups, as, for example, the cells of the dentate nucleus. As would be expected, they suffer the most severe damage in the acute disease-processes—meningitis, uraemia, status epilepticus, and pertussis. Changes in the geniculate cells are accompanied by progressive and regressive reactions of the neuroglia, and pigment atrophy, which constitutes the most common change, is associated with so-called fatty sclerosis of some of the cells. Cells undergoing degeneration from interruption of the visual pathways or from subacute and chronic degenerative diseases develop an excessive accumulation of lipoid pigment.

R. M. S.


The author summarizes his results as follows: In five cases of polioencephalitis severe and characteristic changes were seen in the cells of the dorsal nucleus of the vagus. In spite of extensive destruction in the body of this vegetative nucleus, especially in its second third, it was difficult to trace a relationship between the marked changes in these cells and the clinical symptoms. These latter differed little from the general symptoms observed in other cases of severe brain disease, e.g. acceleration of respiration, rapid pulse, and vomiting. The damage occurring in the vegetative centres of the midbrain may possibly be compensated for by other nuclei, taking up the functions of an inactive dorsal vagus nucleus.

M.

In the two cases recorded here, injuries of the back caused complete paraplegia, retention of urine and faeces and marked sensory disturbances to total anaesthesia, with no evidence of direct pressure on the spinal cord or haemorrhage into its substance.

Primary and secondary degeneration of the spinal nerve-fibres, foci of softening in the parenchyma of the cord and destruction of the ganglion cells can be considered as the pathological manifestations of concussion of the spinal cord. The breaking up of the nerve-fibres, their secondary degeneration and the formation of circumscribed foci of softening observed in these cases were exactly similar to the alterations experimentally produced by Schmaus. Though most marked at the site of trauma, the changes are usually scattered and may appear as destruction of single nerve-fibres only. Haemorrhage has no part in the pathological picture.

R. M. S.

Damage to the spinal cord by kyphoscoliosis (Beitrag zur Klinik der Rückenmarksscheidigung bei Kyphoskoliosen).—T. Schneller. Münch. med. Woch., 1934, 81, 1503.

The spinal cord is sometimes damaged as a result of a kyphoscoliosis giving rise to a partial paraplegia. Conservative treatment is indicated in the early stages, and can be continued for several months. An operation should be performed if the case does not improve after some months or if complications arise.

M.

A glioma of the spinal cord spreading to the meninges: histogenesis and correspondence with syringomyelia (Glioma del midolla spinale diffuso alle meningi. Istogenesi e rapporti con la siringomielia).—P. E. Maspes. Riv. di pat. nerv. e ment., 1934, 43, 1142.

A case is described with the histological findings. The author points out that the origin of the tumour would seem to be from aberrant embryological tissue corresponding to the origin of syringomyelia. He describes the method of propagation of the glioma to the leptomeninges and the histopathological picture of the process, and compares it with those previously described in the literature. He concludes that glioma assumes a particular morphological form when it develops outside nervous tissue and irritates meningeal tissue, which presents a picture of hypertrophic reactive leptomeningitis. The author thinks the clinical aspects of meningeal gliomatosis agree with those of sarcomatosis and carcinomatosis.

R. G. G.

A case of tuberous sclerosis, characterized by typical adenoma seba-
ceum, mental deficiency, a history of convulsive seizures and development
al stigmata, is presented. The unusual features are: (1) A retinal tumour
of the right fundus which had fine capillaries dipping into its substance and
a definite vessel running from the optic disc to the tumour itself; and
(2) peculiar bony lesions limited to the skull and extremities, characterized
by osteoporosis, mottling in the skull, periosteal thickening and destruc-
tion of the cortical architecture. The metacarpal bones and their associated
phalanges showed a few round areas of increased rarefaction suggesting
cysts.

R. M. S.

[126] **The cerebellum in disseminated sclerosis** (Untersuchung über das

The occurrence of sclerotic patches in the cerebellum was demonstrated in
12 cases of disseminated sclerosis. Special involvement of the margin of the
ventricle was seen in one case only. Two frequent localizations were found.
In the inner part of the white matter relatively small patches were seen
surrounding the bloodvessels, but these bloodvessels were scarcely ever
situated in the centre of a patch. The nucleus dentatus was another frequent
site, its plicated lamina being far more seldom affected than its central white
matter and hilum.

From these cases the definite impression is gained that the process
originated in the bloodvessels, unsystematically spreading into the surround
ing tissue. This localization of the sclerotic patches is not in favour of spread
by way of the cerebrospinal fluid, but rather by way of bloodvessels; conse-
quently both sides of the cerebellum were affected, but in no way symmetri
cally. Patches in the cortex of the cerebellum were seen only exceptionaal.
It is noteworthy that the patches in the cerebellum are found in
very different situations; the symptoms generally supposed to be associated
with the cerebellum, therefore, e.g. scanning speech, intention tremor and
nystagmus, in certain cases may be a result of lesions of definite centres and
in others a result of damaged tracts which are in connexion with these
centres.

C. W. D.

[127] **The chronaxy of neurones considered as part of a complex path** (La
cronassia di subordinazione).—F. Visintini. *Riv. di pat. nerv. e
ment.*, 1934, 43, 1096.

This term is used for the study of the chronaxy of a nerve-muscle preparation
as part of a larger pattern through the central nervous system as opposed to
its study in isolation. The author examines this subject in relation to various clinical syndromes and concludes that many of the theories as to the significance of certain chronaxial findings have been too hastily evolved. For example, he shows that whereas it was thought that an equalization of the chronaxy of antagonists and agonists was pathognomonic of extrapyramidal lesions, in progressive pyramidal lesions such a phase of equality may occur in the natural history of the disease-process. He therefore considers that too hasty conclusions as to the localization of nervous lesions should not be drawn and that more work on the subject of chronaxial findings in relation to nervous disease is required.

R. G. G.

[128] Research on the chronaxial findings in catatonia and in its experimental interruption (Ricerche sulla cronassia nella sindrome catatonica e nella sua interruzione sperimentale).—P. E. MASPES and F. VISINTINI. Riv. di pat. nerv. e ment., 1934, 43, 1085.

This work seems to show that the study of the chronaxy of the muscles confirms the idea that catatonia is a subcortical phenomenon, and that the pyramidal system has little or no action on it. Interruption of the catatonic state by the administration of sodium amytal does not affect the chronaxial findings; and since this drug has no action on the pyramidal system its effect must be on the psychic levels, having some sort of unexplained psychomotor influence.

R. G. G.


The author reviews the theories of Zondek on bromine metabolism, which seems to be controlled by the hypophysis. He then describes some experiments of his own in idiopathic epilepsy carried out with the object of investigating the modifications of blood bromine during the convulsions. These show that during a fit the blood bromine is raised, so it is possible that the fit is due to a fall in the bromine content of the nervous system.

R. G. G.


The administration of large amounts of water by stomach tube, accompanied by repeated subcutaneous injections of pitressin, causes spontaneous con-
vulsions in rabbits, with increase in the water content of the brain, and makes them more susceptible to thujone convulsions (thujone being the chief constituent of the volatile oil of absinth). The production of insulin hypoglycaemia to the point at which spontaneous convulsions occur has a similar effect, and there is some increase in the water content of the brain, but this increase is not the factor which makes the animal more susceptible to convulsions.

R. M. S.


Sodium amytal was given intravenously in large and small doses and orally in large doses to groups of 'normal' subjects of an institution for the insane, the various physiological effects being noted. In addition, the effects of the drug on a small group of patients with secondary or therapeutic hyperthyroidism were studied. Large doses (1 gm.) given intravenously caused deep sleep, fall in systolic pressure, fall in temperature, averaging 1° F., marked diminution in basal metabolic rate, averaging 26 per cent., and slight though definite diminution in 'uptake' of oxygen and dextrose by the brain. Small doses (0.25 gm.) caused drowsiness, slight fall in systolic pressure, slight fall in temperature, averaging 0.6° F., and variable effect on the metabolic rate which usually became increased, at times diminished. Large doses by the mouth at times increased and at others diminished the metabolic rate. Given to four patients with therapeutic hyperthyroidism, definite though temporary reduction in metabolic rate occurred in two. The effect on the metabolism of the brain is discussed and compared with the much more marked effect of ether given in large doses. It is thought probable that both drugs cause a diminution in the oxidative processes of brain tissue, more marked in profound anaesthesia than with the less profound sleep of amytal. The striking effect of large doses on basal metabolism is discussed, and it is concluded that the extreme diminution is probably due to a combined effect of sleep and a more specific effect of the drug on brain (hypothalamic?) tissue. The diminution in bodily temperature is also discussed, and is thought to be due to the marked fall in heat production (metabolism), though the possibility of an effect on the heat-regulating centre cannot be excluded.

C. S. R.


In cases of glioma of the brain cells are seen which have probably arisen as a result of a reactive alteration in glia-cells. In the different types of
glioma typical fatty granular cells and dysplastic glia-cells can be observed if neuronic alterations have supervened. The author has met with the same type of granular cells in a case of medulloblastoma. Every glia-cell therefore probably has a natural aptitude for phagocytosis and for transformation into lipid substances.

Wallenberg has made a special research into the origin of the so-called giant glia-cells. Two different types of such cells exist: (1) Cells containing a well-formed nucleus nearly always situated in the neighbourhood of blood-vessels, and (2) monster glia-cells containing diffuse chromatin and always situated in the neighbourhood of necrotic tissue. He is inclined to the opinion that a giant glia-cell is produced as a result of an irritation provoked by the imbedding of a foreign body and may be compared to the origin of giant cells in other kinds of tissue.

M.

SENSORIMOTOR NEUROLOGY


Cases of acute pyrexial syphilis of the brain are to be regarded as special forms of neurosyphilis, the onset being acute or subacute, an exacerbation often occurring later. Such cases are severe at the onset. A rapid improvement may be obtained by specific treatment. Cases of pure meningeal involvement have to be differentiated from meningoencephalitic affections with predominant cerebral symptoms. The postmortem examination performed in a few cases showed a meningoencephalitis with predominant changes in the meninges.

M.


The relative rarity of general paralysis in India in association with the high incidence of malaria has led to the suggestion that this disease may occur in a modified form and so escape recognition. It may be admitted that aberrant clinical types are met with, but it has yet to be shown that such cases exhibit positive serological reactions. The wide range of the clinical manifestations of general paralysis, which is a feature of this disease in Burma, renders it difficult to base a diagnosis on the clinical data alone. It is conceivable that cases are missed owing to the fact that they are modified by naturally acquired malaria. That this may be so is supported by the fact that many recover completely or are only slightly reduced mentally as a result of treatment by malarial therapy. It may therefore be presumed that