in this paper gives an account of the treatment of cases of Sydenham’s chorea exclusively by this means. He applied an elastic band, arranged so that it could be tightened as occasion required, round the neck of the patient, at first only for two hours a day, and then for progressively longer periods, up to a maximum of twenty-two hours in the day. Two of the cases were first attacks, the other four were recurrences, and all were severe. In every case the patient made a rapid improvement and was completely well within four weeks, a course which, in some of the recurrent cases, contrasted strongly with the lingering progress of previous attacks. It was found advisable to continue the use of the band for a time after all signs of chorea had disappeared, relapses being otherwise liable to occur. The author states that he was so well pleased with these results that he now treats all cases of chorea in this manner.

J. P. M.

Endocrinology.


In the study of lesions affecting the vegetative nervous system it must be remembered that there are constant relays of neurons in this system and that lower levels are capable of taking on the function of higher levels. High lesions of the central nervous system produce no more than transitory interference with the functions of the vegetative system; it is in spinal lesions that permanent affections of this system are met with, especially from the third sacral segment downward, where special sympathetic cells replace the usual anterior horn cells. These have to do with the innervation of hollow organs in the pelvis, but any one organ is innervated by cells belonging to more than one segment. Only in sacral lesions are the purely spinal bladder and rectal reflexes completely lost; with lesions at a higher level are found the automatic bladder and the presence of reflex closure of the sphincter on touching the anal mucous membrane.

The reflexes of uterine contracture and erection of the penis seem to be served by a peripheral arc quite outside the spinal cord, but ejaculation is a cord reflex. Dissociated disturbance of potency (interference with ejaculation and orgasm with retention of erection and libido) is diagnostic of lower sacral lesions only if it persists from the beginning.

The sensory nerves from bladder and rectum enter the cord higher than the level at which the corresponding motor nerves leave it, hence retention of the sensation of fullness with loss of motor activity may be of diagnostic value.

In other regions of the cord, less help is obtained from observations on interference with vegetative function. The ciliospinal sympathetic reflex has its cell station in the lateral horn in the transition between the cervical and dorsal segments. The same or neighbouring groups of cells arranged round the central canal in the dorsal segments apparently control the innervation of sweat glands and blood vessels. Recent observations have not confirmed Schlesinger’s contention that the nerves to the sweat glands accompany the
sensory nerves, so furnishing diagnostic evidence of the segment involved. In transverse lesions of the cord sometimes hyperhidrosis and sometimes anidrosis may be present in the affected area. The innervation of the blood vessels may be more useful for localization, and in those cases in which reflex dermographia can be generally induced its absence in one segment is of diagnostic value.

Horner’s syndrome—myosis, ptosis and enophthalmos—points to a lesion of the si liospinal centre at the level of C8—D1.

The centre for the efferent fibres to the intestinal tract is in the dorsal nucleus of the vagus in its posterior part, and that to the lungs in its anterior part, but the inhibitory centre for the heart is still uncertain, and beyond the fact that bradycardia, Cheyne-Stokes and Adam-Stokes syndromes are associated with lesions of the floor of the fourth ventricle nothing definite can be stated. Lesions of the dorsal vagus nucleus will produce glycosuria.

Lesions of the formatio reticularis cause homolateral sympathetic ophthalmoplegia and contralateral sweat gland and vasomotor disturbances in the extremities, which may be quite independent of motor lesions. The centres for the salivary glands are in the formatio reticularis of the pons, cells at the level of the seventh nucleus being concerned with the submaxillary gland and cells caudal to this with the parotid.

In the midbrain the pupillary reflex is the diagnostic indication, though results as to the position of the cell stations of the pupillary fibres are conflicting. No certainty can be attached to the statement that the abolition of reflex dilatation of the pupil to pain points to a lesion of the corpus subthalamicum. It is uncertain whether diabetes is due to a lesion of the hypophysis or of the midbrain. The vegetative functions associated with the basal ganglia are still obscure, and various contradictory results and views are described. In the cortex there seem to be centres for the retention and discharge of urine, located in the region of the cortical representation of the spinal segments corresponding to the hypogastric and pelvic nerves respectively.

Localized symptoms of interference with vegetative function have been observed in Jacksonian fits and these may be useful in locating the lesion. The effects of cortical lesions on pupillary reaction are still too vague to be of practical use.

R. G. Gordon.


Notwithstanding the meagerness of our endocrinological knowledge, this writer believes that we are more than justified in employing organotherapy in many cases of hypogonadism. While we formerly blamed ‘nervous heredity,’ we now frequently must speak of ‘glandular heredity.’ Recently he has given small doses of prostate (grain 1) with other glandular preparations to impotent patients with beneficial effects. Practical experience, he thinks, proves that the internal, the hypodermatic and the intravenous use of orchitic preparations is very effective also. Considering how the various endocrine glands function together, he cannot see that anything can be accomplished without.
pluriglandular organotherapy. Since most impotent persons, mainly elderly, are also anaemic, he advises the addition of three to five grains of haemoglobin. Each case, however, must be studied individually. The author has also seen good effects upon the sexual power follow the injection of ram’s semisolid testicular substance, and also from ligation and severing of one or both vasa deferentia.

C. S. R.


The case here reported is that of a young man of eighteen, who for three weeks before admission to hospital had been subject to spasms in the hands and feet; when he was examined the phenomena of Trousseau and Chvostek were both present, and the muscles were hyperexcitable to electrical stimuli (Erb’s sign). The calcium content (total) of the blood serum was found to be 5·9 mg. per cent. (Normal value for patient of same age, 11 to 12 mg. per cent. (Leicher.)

The patient was given by intravenous injection 10 c.c. of a preparation of calcium-chloride-urea (Afenil). Within fifteen minutes of the injection Trousseau’s and Chvostek’s signs were no longer obtainable, and the strength of current required to cause muscular contraction was almost doubled; a sample of blood taken thirty minutes after the injection showed a calcium content of 7·1 mg. per cent. During the next ten hours the patient was well, and no signs of tetany could be elicited; then Chvostek’s sign alone reappeared.

Three days later the patient had a typical severe attack of tetany and received an injection of Afenil during the attack; the spasms relaxed at once and the twitchings abated. Since then two injections of Afenil have been given each week, and the patient has had no further attacks.

It seems from this case that the intravenous injection of calcium may give immediate relief in attacks of tetany, and that its effect persists for a period sufficient to keep the patient free from attacks until calcium given by the mouth has had time to act.

J. P. M.


The depletion of the dreaming mind by sleep is reflected in a disturbance of the sense of reality. Bodily sensations are important contributions to our sense of reality. It is possible that moments of purely mental activity may cause a sense of unreality by depleting consciousness of the marginal mass of sensation. This occurs in the dream and disturbs the dreamer’s sense of reality.