[58] Radical operations for major trigeminal neuralgia.—C. H. FRAZIER. 

DR. FRAZIER has operated on 654 cases of facial neuralgia among 1,317 cases 
seen in 30 years, by the major method with which his name may be associated, 
and in the course of his experience mortality has been reduced to 0·26 per 
cent. Beginning with section of the sensory root in 1901, he started the pro-
cedure of subtotal resection—that is, with conservation of the ophthalmic 
portion of the root—in 1915. From 1918 he has also practised operation with-
out touching the motor root. In his hands the operation as now conceived 
has proved entirely satisfactory. This paper recounts his experience and adds 
details to which attention may be directed.

S. A. K. W.

[59] 'Dial' as a surgical anaesthetic for neurological operations; with 
observations on the nature of its action.—J. F. FULTON, E. G. T. 
LIDDELL, and D. M. RIOCH. *Jour. of Pharmacol. and Exp. Thera-
peutics*, 1930, xl, 423.

DIAL, the trade name for a liquid preparation of diallylbarbituric acid, is a 
satisfactory anaesthetic for major neurological operations on monkeys, cats 
and dogs. In monkeys there is a large margin of safety between the anaesthetic 
and the lethal dose. For the animals mentioned 0·4 to 0·5 c.c. per kilogram 
intraperitoneally is adequate.

Dial produces a state akin to normal sleep. Its site of action appears to 
be in the deep nuclei, chiefly in hypothalamus and medulla. In 100 operations 
under dial of the kind mentioned only one fatality was attributable to the anaesthetic.

J. S. P.

**Endocrinology.**

[60] Innervation of the thyroid gland: (1) The presence of ganglia in the 
thyroid of the dog.—J. F. NONIDEZ. *Arch. of Neurol. and Psychiat.*, 
1931, xxv, 1175.

The present article deals with the structure of ganglia found in the thyroid of 
the dog.

The author’s descriptions clearly indicate that the thyroid of the dog, 
investigated from the standpoint of its innervation, may possess typical 
ganglia embedded in the parenchyma. The same is probably true of other 
mammals, including man.

That no ganglia have ever been described in sections of the thyroid of
the dog stained with routine methods is rather surprising since their neurons are quite large. But since the ganglia may be widely scattered, and are usually of small size, unless complete series of sections of whole thyroid lobes are examined it is easy to miss them. In new-born or very young puppies the task is considerably simplified, especially when neurofibrillar methods of staining are used. The latter stain the neurofibrils in the cell-bodies and dendrites of the neurons, thus removing any possible doubt as to the nervous nature of these elements. It must be stated, however, that successful impregnation of small ganglia in glandular organs is usually difficult, the chances of success depending largely on the technical skill of the investigator.

The idea that the ganglion-cells of the thyroid have entered the gland accidentally does not find support in the observed facts. The presence of fibres effecting connections with the neurons in the ganglia strongly indicates that the latter receive impulses from the central nervous system through preganglionic fibres. It is possible that some of the latter arise from the spinal cord and reach the thyroid after crossing the cervical sympathetic. However, the fact that the thyroid develops as a diverticulum of the floor of the embryonic pharynx suggests that the preganglionic fibres may come from the same source as many of the corresponding fibres supplying the ganglia of the alimentary tract (the descending colon excluded), viz. from the vagus. If such is the case, then the thyroid would also be supplied by the parasympathetic division of the autonomic nervous system.

The fact that some thyroids contain numerous neurons grouped into definite ganglia or appearing as elements scattered along the path of the nerves, and that in other glands neurons are very rare, suggests that their function is not primarily related to secretory phenomena in the follicular cells. In all probability they are concerned in the regulation of the circulation of the organ. In this regard it should be remembered that in many dogs there is no inferior thyroid artery. Even when present this vessel is much smaller than the superior thyroid artery. The presence of a double blood-supply in some thyroids may necessitate the existence of regulatory nervous mechanisms to facilitate the distribution of blood flowing in nearly opposite directions through vessels of unequal size, and arising from arteries of large calibre.

R. M. S.


Twenty-two cases were investigated, all of them male patients in a mental hospital. They included eight cases of dementia praecox, four of melancholia, one of mania, three imbeciles, one confusional case, one insanity with epilepsy, one paralysis agitans, one postencephalitic, and two general paralytic cases. In three of the eight dementia praecox cases a definite improvement coincided
with the diminution of serum cholesterol; two of these were extremely dull, brightened considerably under treatment, and became apathetic after its suspension: the third, a very deluded man, full of bitter complaints, lost his delusions and became mildly hypomaniacl, remarkably pleased with himself and all around him; he also returned to his former state when thyroid was stopped. One dementia precox patient became worse and was more hostile. In one melancholia case increased agitation was the result. The one maniacal patient remained so until about three weeks after cessation of thyroid, when considerable improvement coincided with a great increase of blood cholesterol. The remaining patients showed no mental change, except that both general paralytics became less amenable and more difficult to nurse. The patient with a postencephalitic condition soon showed signs of thyroidism, and in the case of paralysis agitans the tremor was increased. Evidently any change accompanying thyroidic diminution of blood cholesterol will result from the increased excitability of the nervous system.

C. S. R.


In a patient affected by syphilitic myelitis with urinary incontinence and complete absence of sexual stimuli and erection for two years, the injection of certain preparations of neuro-hypophyseal substance provoked, together with other phenomena, a reestablishment of the functions of the bladder, and an immediate erection after a single injection. Thereafter a gradual and progressive return, after a certain number of these, to normality of the sexual function took place. The author compares this particular result with the already well-established influence of neuro-hypophyseal products on smooth muscle in general, and discusses with reference to this case the factors governing the phenomenon.

R. G. G.

Psychopathology.

Psychology.

[63] The emotional value of dress.—J. C. Flugel. Psyche, 1931, xii, 49.

The three functions of dress are related to decoration, modesty, and protection. The first two are purely psychological in nature and the third corresponds to certain needs of the mind as well as of the body. Modesty and decoration originate in opposed instincts and impel to contrary actions. Phylogenetically, decoration is the chief motive, and modesty comes later. Protection only