percussion hammer, and the contraction is limited to a group of muscle fibres approximately equal in size to the superficial dimension of the exciting body. The author has examined the phenomenon in a large number of cases of nervous disease, but does not formulate his general conclusions in any synthetic fashion. He notes the modifications of myotatic irritability ensuing on changes of a dyskinetic nature and on alterations in muscle tone. Speaking generally, the less the tonus, the greater the idiomuscular contraction, as in cerebellar disease, tabes, etc. [This is contrary to the views of some other investigators.] In cases of muscular rigidity it is reduced. Many details are furnished of the behaviour of the Schiffian 'wave' under different conditions of nervous system and of muscle, and its pathological physiology is sketched in a somewhat speculative way.

S. A. K. W.

**TREATMENT.**

[189] **Treatment of epilepsy** (Le traitement de l'épilepsie).—V. Demole.


The author proceeds to review the more recent therapeutic agents in the treatment of epilepsy.

**Proteinotherapy.**—Injections of albumin, microbial toxins, etc., subcutaneously, intramuscularly or intravenously, have in certain cases led to surprising results. Doelken has used injections of cow's milk intramuscularly—2 to 5 c.c. in adults and 1 to 2 c.c. in children—three times a week. Five or six hours after the injection there is a feeling of well-being. Doelken uses luminal, 0-1 grm. to 0-3 grm., in addition to his injections. At the end of six months the injections of milk are reduced to one each week.

The fact that in some cases the attacks seem to be periodic, occurring at a certain time during the day or night, during the menses, etc., seems to point to epilepsy being of the same nature as asthma, urticaria, migraine and angioneurotic œdema. In this view the attack is evidence of the presence of an anaphylactic shock, and in support of this there is the observation of Widal, who states that he has produced attacks by injecting the patient with his own serum.

The author states he himself has had no success with intravenous injections of milk, and also that attempts at desensitization with 20 per cent. sodium hyposulphite solution have led to no better results.

**Psychotherapy.**—Those cases of fits cured by this means the author would regard as being purely hysterical in character.

**Endocrinology.**—A type of epilepsy is recognized in England and America as being due to hypofunction of the pituitary gland. In this type the fits appear at puberty, the sella turcica is enlarged, and the patient presents the dystrophia of hypopituitarism. Such cases improve considerably when treated with injections of the gland.

**Surgery.**—In head injuries no more improvement is to be hoped for by operation than can be obtained by sedative drugs, with the added risk that a monoplegia or hemiplegia may be the sequela of the operation.

**Sedatives.**—Luminal, 0-2 to 0-5 grm. daily in the adult, lessens both the
frequency and the gravity of the attacks. In combination with atropine and bromides still better results are obtained.

Of the borates, potassium boroico-tartrate is the most efficacious, and its use is not attended by any unpleasant after-effects.

In his final summary the author reverts to the value of bromides, and states that administration of bromides together with a partial salt-free diet remains the most effective treatment of epilepsy.

W. JOHNSON.

[190] Phenobarbital (luminal) treatment of insane epileptics.—IRA A. DARLING. Arch. of Neurol. and Psychiat., 1923, ix, 478.

The author records the treatment with phenobarbital of a series of insane, hospitalized, male epileptics, and the conclusions given below are based on observations made on the following groups of patients: (1) 15 idiopathic epileptics treated for 8 months; (2) 13 idiopathic epileptics treated for 21 months; (3) 12 idiopathic epileptics treated for 8 to 13 months; (4) 6 traumatic epileptics treated for 13 months; (5) 6 senile epileptics treated for 8 to 13 months; (6) 2 syphilitic epileptics treated for 14 months.

His conclusions are summarised as follows:

1. Phenobarbital has a cumulative effect that appears to be successfully combated by a break of two days in each week during its administration.

2. A sudden break in its administration is sometimes followed by a series of seizures. There is much less danger of such trouble if bromide is given as soon as the other is withdrawn.

3. One and a half grains (0.09 gram), given five days in each week, appears to be a safe dosage. If larger amounts are given, very careful observation is necessary to detect possible toxic symptoms early and to prevent the more serious disorders.

4. The use of this drug may be followed by: rash, simulating measles or scarlet fever; symptoms like those of alcoholic intoxication; severe cholera-like diarrhcea; mental hebetude; delirious states; and other like troubles.

5. Favourable results were obtained from the administration of phenobarbital in cases diagnosed as idiopathic and traumatic epilepsy. The results in cases diagnosed as senile and syphilitic epilepsy were doubtful.

6. The drug is not to be considered as a 'cure' or specific for epilepsy.

7. Phenobarbital and bromide may be combined and better results thus obtained in selected cases.

8. Each case should be considered as an individual problem and phenobarbital, bromide, or a combination of the two used according to the results.

E. B. G. R.

Psychopathology.

PSYCHOSES.


Dr. BENON combats the generally accepted ideas of Kraepelin on periodic