

its height and diminished when the disease subsided proves the causal connection with the latter.

6. Unequality of the knee-jerks.

The question is discussed whether inequality of the knee-jerks, that is, a difference in force and promptness between the knee-jerk of one and that of the other side, can be considered as a sign of organic nervous disease. The question is answered in the negative, as this inequality is found also in functional nervous diseases, viz., in akinesia algida, myoclonus multiplex, hysteria and neuralgia (for instance, neuralgia of the sciatic nerve; it is true that here the neuralgia may sometimes be organic). Inequality of the knee-jerk may also be met with in chronic articular rheumatism when the disease is localized in the joints of one side only. In hysterical palsies the tendon reflexes are frequently increased on the side of the paralysis. When hemianæsthesia is associated with it, the cutaneous reflexes are diminished in contrast to the increase of the tendon reflexes.

5. Treats on cutaneous and other reflexes as influenced by sensory disturbances.

Anæsthesia causes lessening, hyperæsthesia exaggeration of the cutaneous reflexes. Aside from the exaggeration of the cutaneous reflexes, there are other signs that can help us prove the existence of hyperæsthesia in doubtful cases, viz :

a. The production of the pain reflex of the pupil by means of sensory irritation of so slight degree that under normal circumstances it would not cause any pain.

b. The vasomotor effects (rushing of blood to the head, acceleration of the pulse, change of the pulse curve), the vertigo and the alterations of the character of respiration called forth by pain stimulus of quite mild degree (pinching, stinging).

These symptoms often seen in hysteria and traumatic neurosis are of diagnostic value as they make it easier to make the differential diagnosis between said neuroses and simulation.

ONUF.

### PATHOLOGICAL.]

**The Posterior Corpora Bigemina as Centres of Hearing, of the Voice and of Special Movements.**—Bechterew (*Neurologisch-  
czeski Wiestnik*, 1895, Vol. iii., No. 2. Russian).

After discussion of the anatomical investigations which have proven the connection of the posterior corpora bigemina with the eighth nerve, the author passes over to a report of the results produced by ablation (and excitation) of these masses of gray substance. The experiments were performed upon rabbits, guinea pigs and white rats. The following conclusions are reached :

1. If the destruction of both posterior corpora bigemina was sufficiently thorough, a more or less marked diminution of hearing or complete deafness followed.

Superficial destruction of the gray masses mentioned did not have any noticeable influence upon the sense of hearing of the animals.

2. Where the ablation had been sufficient, it was noticed that besides the impairment of the sense of hearing, a weakening or even complete cessation of the voice was the consequence. Unilateral ablation caused only weakening of the voice. Superficial ablation had no effect upon it.

3. After thorough ablation of the posterior corpora bigemina the animals lose the faculty of standing and gait, although otherwise the motility of the extremities is preserved.

The symptoms observed during the first hours after the lesion of the posterior corpora bigemina were : Staggering gait, forced movements or forced positions, sometimes manège movements with devia-

tion of the eyes, lying upon one side of the body, turning of the head, occasionally nystagmus, etc.

Similar motor disturbances, only in a reversed sense had been observed after excitation of the posterior corpora bigemina.

Although the existence of a cortical centre for the voice has been claimed and described by Krause, Simon, Horsley and Masini, the author found that there is no spot in the cortex whose destruction would have any influence on the voice. Transverse (frontal) sections of the brain anywhere cephalad from the corpora bigemina produce no alteration of the voice; when the section is made caudad from the corpora bigemina posterior, the voice ceases altogether.

The author does not believe that the effect upon the voice and the other motor disturbances observed as a sequel to ablation of the posterior corpora bigemina is due to lesion of deeper lying structures, for instance, of the superior cerebellar peduncles, but is convinced that the posterior corpora bigemina are themselves the centres for said movements.

ONUF.

#### CLINICAL.

**On a Symptom Complex of Congenital, Apparently Acquired, Disturbance of Co-ordination.**—Nonne (*Archiv f. Psychiatrie u. Nervenkrank.*, Vol. xxvii., Part 2).

After referring to his first publication on this subject in which he portrayed the symptom complex of a peculiar family disease as it had manifested itself in three brothers, and in which he gave the findings of a careful histological examination of the nervous system in one case which had come to autopsy, the author takes a brief retrospect of the contributions that have been made to this subject and conditions simulating it and then proceeds to put on record the histories of six cases.

A synopsis of these cases shows:

In case No. I.

1. Spontaneous (or possibly after measles), early beginning (five years old).
2. No heredity.
3. Disturbance of co-ordination, involving the muscles of the extremities, of the trunk and the mimic muscles.
4. Severe involvement of the lower extremities.
5. Abnormal liveliness of the tendon reflexes.
6. Tendency to rigidity of the muscles of the lower extremities.
7. A "phonetic" disturbance of the muscles of the lips, tongue and larynx which subserve the act of speech.
8. Slight insufficiency of the external eye muscles and manifestations of nystagmus.
9. Slight deterioration of intelligence. No disturbance of the pupils; no alteration of sensibility; sphincters intact; no atrophy of optic nerve.

In Case No. II.

1. Spontaneous and early beginning (seventeen years old).
  2. No heredity.
  3. Comparatively severe disturbance of co-ordination in the upper and lower extremities simulating "cerebellar" ataxia.
  4. Liveliness of tendon reflexes without muscle contracture.
  5. Phonetic disturbance of speech and concomitant affection of the mimic musculature.
  6. Limitation of intellectual capacity.
  7. Slight insufficiency of external eye muscles; no nystagmus; no optic atrophy; no disturbance of pupils.
  8. Normal sensibility and sphincters.
  9. Chlorosis and muscular symptoms.
- In Case No. III.