CLINICAL NOTES AND CASES.

Cerebral Localization. Brachial Monoplegia from Cortical Lesion. By Wm. Julius Mickle, M.D.

(Specimen shown at Meeting on Nov. 5th, 1884. See "Journal Mental Science," Jan., 1885, p. 642.)

J. N., a soldier, admitted in 1875, at the age of 38, having been then insane for three months, and eccentric for four years previously. Of his term of service, 13 years had been in India, and whilst there he had been twice treated, in 1860-1, for venereal "primary sores." There was no history of convulsion, cranial injury, constitutional syphilis, or intemperance.

During the attack, but *before admission*, he had been suffering from acute mania, sudden in its onset; had been in low physical condition, and the subject of hæmatoma auris.

On admission he was still acutely maniacal, and was emaciated. The face had an aged, dried, wizened, sallow, parchment-like appearance; irregularity of a fourth rib existed; slight enlargement of inguinal glands; and interrupted inspiration at the right apex. Weight, 131lbs.; height, 5ft. 7in. ℞, K.I., Baths, Conium. Hypnotics, *p.r.n*, &c.

The acute excitement passed away. He became industrious, quiet as a rule, subject to occasional excitement, and to delusion of sombre and morose tinge. He gained 40lbs. in weight.

Passing to the final illness: In 1883 signs of pulmonary phthisis became decided. The urine was free from albumen or sugar. In 1884 phthisis was more advanced; and the bowels became obstinately more or less loose from tubercular ulceration; the stomach, too, was irritable and dyspeptic, and the difficulties in treatment were enhanced by the patient's illusions of taste and smell, and delusions about his food and the remedies given to meet the various indications that arose. Both being taken continuously for months, his evening temperature usually exceeded his morning temperature by from 1° to 2°, 3°, or even 4° Fah. Latterly he grew very pale and sallow, having almost a cancerous look.

Oct. 22nd.—Delirious, noisy, loquacious, swearing, and obscene, abusive, distressed, and self-worrying, disconnected, but monotonously reiterative in his delirious utterances. *A.m.*, pulse 80, resp. 24, temp. 98°; *p.m.*, p. 114, r. 21, temp. 98°. For several days previously his temperature had been ranging between 99° and 100·4°, and the pulse and respiration had been higher. He now refused food, and had peptonized-milk enemata for one day, after which he took his quinine, brandy, eggs, milk, etc.

On the 23rd the delirium continued, and the attendant reported a

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convulsive seizure. *A.m.*, pulse 92, resp. 26, temp. 98·4°; *p.m.*, p. 120, r. 32, t. 98°.

On the 24th the delirium had quite passed away. *A.m.*, pulse 120, resp. 32, temp. 97·6°; *p.m.*, p. 92, r. 26, temp. 98°.

By the 26th the bowels had been loose for several days; enemata containing arg. nitr., but later on ac. tannic had been given. There were some signs of inflammatory congestion at the bases of the lungs.

28th.—Sudden palsy of the right upper limb, without any spasm, or loss of consciousness or mental change, or affection of speech, and not associated with abolition of sensation.

29th.—Paralysis more marked, complete in the right upper limb, with some paresis of right lower limb. Tongue protruded very slightly towards right; face apparently not affected. Respiration variable, and irregularly up and down in rhythm. At midnight, the right fingers twitching, the right upper limb the warmer.

30th.—Respiration more irregular; left ptosis; patient very restless, but able to reply. Some rusty sputum; some dulness, crepitation, and slightly bronchial respiration, about bases. A dextral epileptiform seizure next took place, affecting the head, eyes, trunk, and palsied right arm, and followed by partial unconsciousness, weakness of both legs, dysphagia, and almost apparent death. Under active treatment he revived, the pulse however remaining feeble, and the respiration being then in cycles, a group of four such lasting 70 seconds, each cycle consisting of eight respirations, of which the last two were long and noisy in expiration and with moist rattles. Later in the day were two more dextral epileptiform seizures; coma; heavy, laboured respiration; death.

The relation between morning and evening temperature usual to this case was reversed on the last three days of life, the morning temp. being 2·1°, 1° and ·6° higher than the evening temp. on the 27th, 28th, and 29th respectively.

26th	*a.m.*	pulse	120	resp	38	temp.	97·6°
27th	,,	,,	120	,,	36	,,	99·6°
28th	,,	,,	126	,,	42	,,	99·0°
29th	,,	,,	120	,,	44	,,	98·4°
30th	,,	,,	132	,,	24	,,	99·0°
26th	*p.m.*	pulse	126	resp.	40	temp.	97·6°
27th	,,	,,	120	,,	40	,,	97·5°
28th	,,	,,	120	,,	36	,,	98·0°
29th	,,	,,	126	,,	46	,,	97·8°
30th	,,	,,	—	,,	—	,,	—

Abstract of necropsy, 48 hours after death.—Firm, pale clots, mingled with dark, in the dura-matral sinuses and in the superior meningeal veins; the whole length of the superior longitudinal sinus being partially filled by a very firm and pale, pre-mortem, clot. Some small thin flakes of soft dark blood-coagula on the upper part

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of the inner surface of dura-mater. The dura, slightly thickened, was peeled without difficulty from the calvaria. The arteries at base of brain contained a little dark clot. Slight adhesion between dura, and pia-arachnoid, on each side, at vertex. The membranes were stripped with fair ease from the brain. The cerebral grey cortex was rather pale generally; and somewhat wasted in the fronto-parietal region, with slight pial œdema. Both the medullary substance of the brain and the cerebellum were of fair consistence, and rather pale. Fornix softish; basal ganglia pale and flabby; fluid from cranial cavity $1\frac{1}{2}$ fl. oz.

The whole depth of the grey cortex of nearly the upper inch of the anterior central gyrus was reddened, softened, and the seat of punctiform injection and punctiform hæmorrhage. In front, this lesion extended to the grey matter forming the floor and sides of the posterior part of the superior frontal sulcus, and to the marginal strips of the first and second frontal gyri, bounding the latter; behind, the lesion extended across the fissure of Rolando to touch the Rolandic aspect of the posterior central gyrus. The margins of the softening were marked by intense punctiform injection, limiting the lesion, and in parts forming the exact boundary between the grey and the white.

Some partially decolorized clots in the heart; those in its left chambers were partly adherent to the walls and columns. Aorta slightly atheromatous; aortic valves slightly too thick and opaque. Lungs in a state of advanced phthisis, with considerable cavitation of the left, which, of the two, was the one more closely bound to the chest-wall by tough old thick leathery adhesive pleuritic false-membranes. In both lungs, congestion and œdema of the lower lobes, with some pneumonia-patches in the right. Wedge-shaped fresh infarcts in kidneys, two in the left, one in the right; capsules slightly adherent. Spleen firm; liver somewhat so. Shallow, superficial, circular, ulceration of gastric mucous membrane; some tubercular ulcers of the small intestine; a few small, circular, superficial ulcers of mucosa of colon.

Weights, in ozs.: Right cerebral hemisphere, $22\frac{1}{2}$; left, $22\frac{1}{2}$. Cerebellum, $5\frac{1}{8}$. Pons. and M.O., $\frac{7}{8}$. Heart, $10\frac{1}{2}$. Right kidney, 4; left, $4\frac{5}{8}$. Spleen, $6\frac{3}{8}$. Liver, $63\frac{1}{2}$.

Remarks.—The point of chief interest was the precisely defined, acute, red softening, limited to the grey cortex of the upper part of the left anterior central gyrus, to that of the posterior part of the superior frontal sulcus, and of the adjoining margins of the first and second frontal gyri. Partly by putting out of use, and partly by irritating, the cortex, this produced right brachial monoplegia of an absolutely complete character, for the time being; then slight paresis of the right lower limb; occasional twitching of the right fingers; and right unilateral convulsions, without abolition of sensation in

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these parts. Other pathological cases have indicated the intimate physiological connection between the left anterior central gyrus and the right upper limb, and the present case gives some support to the views of those who hold this connection to be rather with the upper than with the middle third of the convolution. The lesed left first and second frontal gyri also, in slight degree, represent this upper limb; or, at least, their lesions often have some influence on its functions. The comparative slightness of the affection of the leg is to be expected in a left cerebral lesion situated as in this case. The finally irregular up and down respiratory rhythm, and the final reversal of the relation between *a.m.* and *p.m.* temperature usual to this case were also worthy of notice.

Other interesting points there are, unconnected with cerebral localization, and not taken up here.

Case in Asylum Practice where Seven Ribs were Discovered to be Fractured, after Death.—Reported by HARRY A. BENHAM, M.D., Assistant Medical Superintendent, City and County Asylum, Stapleton, Bristol.

James Clark, æt. 54, married. Admitted into the asylum on 14th December, 1883, at 5.20 p.m. Patient, who has been blind for 20 years past, was reported to be neither epileptic, suicidal, nor dangerous. The medical certificate stated that patient "is imbecile in manner and conversation, and appears totally incapable of taking care of himself." No history was then obtainable. He was first taken to the workhouse, and after being detained there a few hours was brought to this asylum. While at the workhouse he would take no food; on admission, being unable to stand, he was carried from the cab into the waiting-room, where he showed symptoms of excitement. He was carried into the wards, bathed, and put to bed in my presence. From admission, he could not stand without assistance. As he was very restless and tried to roll about, mattresses were placed on the floor of his room to prevent his doing himself any injury. I examined him when in the bath-room, and no fracture or displacement of the ribs was discoverable; owing to his becoming restless and excited when his body was touched, I was unable to apply the stethoscope to his chest. From admission, he had the delusion that all nourishment was poison, and he could only be induced by coaxing to take any.

After his death his wife, to whom I had written, came over and told me that her husband had been under medical care for two years past, since which time he had been obliged to give up his post as teacher of the blind. He had lived at home and kept quiet until about a month previously, when he became excited and refused his food, believing it

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