

It may be added that since his liberation his wife died, and that the event moved him not at all. He has continued his wild and reckless conduct, and has now been shipped off to the colonies.

Dr. HUGHES (St. Louis, U.S.A.)—We had supposed on the other side that the “knowledge of right and wrong test” had been abolished in England ever since the famous trial of Hadfield for shooting at the King in Drury Lane. In our country we are accustomed to point to British advance in medico-legal affairs on the line of enlightened humanity in accord with the dicta of psychiatric science that insanity is a disease which may co-exist with a knowledge of right and wrong, modified, of course, by disease, though not always apparent in any specific act.

*Notes on Three Cases of Spontaneous Gangrene.** By W. B. MORTON, M.B.Lond., Assistant Medical Officer, Wonford House, Exeter.

Gangrene is undoubtedly a rare occurrence amongst the insane, although one would expect the lowered vitality and diminution of general sensibility, which are found in many mental diseases, to be predisposing agents, and it is a remarkable coincidence that we should have had three cases within nine months amongst less than 150 patients.

CASE I. was that of J. T., a fat, flabby, unhealthy man, aged 52, who was admitted on 22nd August, 1894, with an attack of recurrent melancholia. He was restless, sleepless, refused all food, and had to be fed with the tube.

A fortnight after admission the right foot was noticed to be swollen, cold and discoloured, and this became worse, until at the end of a month the toes were black, dry, and shrivelled, and a line of demarcation was formed at the ankle-joint; his general health was poor.

At the end of two months he was much improved, both mentally and physically; he was rational, but still melancholic; he ate well, and was much stronger; there was a well-marked line of separation at the ankle-joint; shooting pains in the foot and leg were severe, but were controlled to a great extent by opium.

Six weeks later his health had further improved, and consequently the leg was amputated at the “seat of election.” Recovery after the operation was uninterrupted, and in a fortnight the stump was soundly healed, but the shooting pains and painful sensations

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in the missing toes remained for several weeks; he continued to improve, both mentally and physically, and after nine months was transferred to another asylum.

CASE II., M. K., an American lady, aged 76, who was admitted on 18th September, 1894, with an attack of acute mania.

During the first week she was sleepless, and at times violent, refused food, and had to be fed with the tube; her general condition was poor, there being much cardiac weakness and irregularity of pulse. At the end of the week the right foot and leg were found to be colder than the left and somewhat swollen, and three days later there was marked discoloration, extending to 6in. above the ankle, and a brawny swelling was noticed on the posterior surface of the leg, reaching to within 3in. of the knee.

At the end of a month her mental condition was much improved; she could talk rationally, but there was still some mental confusion; the foot was black, dry and shrivelled, and there were several large bullæ on the leg; the brawny swelling was increased in size, and was tender and painful, but as yet there was no sign of a line of demarcation.

At the end of two months her general condition was much improved; she ate and slept well, and her pulse was stronger and regular; mentally she was almost herself, but at times unstable and suspicious; she complained much of shooting neuralgic pains in the leg and foot, especially at night; a line of demarcation was apparently forming 3in. below the knee in front, and 1½in. behind.

A week later the leg was amputated through the condyles by a modified Carden's method. There was considerable shock for 48 hours; she was drowsy and at times delirious, but she rapidly recovered, and 12 days afterwards she was quite herself and the stump soundly healed.

Subsequently she had two relapses, but finally was discharged recovered on April 9th, 1895.

Painful sensations in the missing toes persisted for five months, but gradually died out.

CASE III., M. B., a very stout lady, aged 69; she had been insane over 30 years, and was suffering from dementia, with recurring attacks of excitement. During the last few years she had several severe attacks of faintness and dyspnoea, resulting probably from a fatty heart.

On May 1st she was suffering from diarrhoea, and was confined to bed for eight days, and was much weakened in consequence; she then became excited, and was allowed to get up, and a few hours afterwards complained of sudden severe pain in the left leg, and returned to bed. Next day the foot and leg were cold, swollen and tender, as far as the knee, and there was commencing discoloration of the foot, which rapidly spread upwards without showing any tendency towards a line of demarcation; her general

health was very bad, the heart was dilated and fatty, and the pulse rapid, irregular and feeble; the gangrene continued to spread up the thigh. the cardiac condition became gradually worse, and she died 12 days from the beginning of the attack.

No post-mortem was allowed, but an examination of the femoral artery, below Poupart's ligament, showed it firmly plugged by clot, and during life there was marked tenderness, and an impression of solidity along the course of the vessel.

The cause of the gangrene in J. T. was probably thrombosis of one of the chief arteries of the leg, the contributing factors being (1) a weak fatty heart, (2) disease of the arteries, as shown by examination of the removed portion of the leg, and (3) the lowered vitality resulting from his weak general condition, refusal of food, and constant standing on the cold floor during restless sleepless nights.

In M. K. there was probably a similar origin, though there was no ascertainable disease of heart or vessels. She was in a weak state of health from the refusal of food and exhaustion consequent on the mental disease, but there might have been some slight direct injury received during one of her violent outbursts.

An examination of the removed portion of the leg showed the brawny swelling referred to above, to be a cellulitis spreading inwards between the superficial and deep muscles; there was a tendency to breaking down in places, but no pus was present.

It seems possible that the gangrene was produced by the spread of inflammation to the arteries from the cellulitis, which was probably caused by some direct violence to tissues of lowered vitality, although the discoloration of the gangrene was distinctly prior to any tangible cellulitis.

The *third case* was probably of a different nature and due to embolism, the heart was fatty and dilated, and it is likely that during the week's illness in bed, a clot was formed in the heart and became dislodged when she got up, causing the sudden and severe onset of the disease.

It was noticeable, as is so often found in mental diseases, that in the first two cases there was marked improvement in the mental symptoms within a day or two of the onset of the physical disease, especially in M. K., who quickly passed from noisy incoherence and violence to comparative quiet, and rationality, and she continued to improve as the disease advanced.

Discussion on Dr. Morton's Cases.

Dr. DEAS said he had been in practice in this specialty for thirty years, and these were the first cases he had seen of the kind, and they had all occurred within nine months as Dr. Morton had pointed out. Doubtless, Dr. Morton's modesty had prevented his saying before them what he (Dr. Deas) would like to say, and that was that the very satisfactory result in the first two cases was undoubtedly due to the very skilful manner in which he treated them.

Dr. AVELINE mentioned a case of gangrene of the foot, and Dr. WEATHERLY referred to another of slight gangrene who gradually recovered.

Drs. DAVIS and ALDRIDGE also cited cases of gangrene of the toes requiring amputation.

Types of Traumatic Insanity. By THOMAS PHILIP COWEN, M.D., B.S. (Lond.), Assistant Medical Officer, County Asylum, Prestwich, Manchester.

Several cases of *insanity following injuries to the head* have been admitted to the County Asylum, Prestwich, of late. Although we do not assert that there is a special form of insanity arising from "trauma," yet there are certain *types* of mental derangement produced either directly or remotely by injuries. The five cases which are described below are of special interest and are good examples of certain of these types. None of them proved fatal, but the diagnosis is so clear in each of them that the pathological processes involved may be accurately described.

The second and third cases have recovered and will probably do well. The first, fourth, and fifth are apparently hopeless, and will probably remain in much the same condition for the rest of their lives.

The depressed fracture causing the epileptiform seizures in the fifth case could not be treated surgically, as operation was refused.

CASE I.—*Imbecility with Epilepsy, arising from Injury during Birth.*—J. R. S., aged 26 years, was admitted to the asylum on 12th July, 1895.

Family History.—He is the eldest of a family of six. The remaining members of the family are quite healthy, mentally and bodily; none have suffered from fits or paralysis of any kind. He was born after a prolonged and rather difficult labour, but one which did not necessitate instrumental interference.

During the first few months after his birth nothing special was noticed, except that he did not develop properly and that the legs seemed weak, although not limp and absolutely paretic. The child was said to be always fretful and restless, and showed a