uniformly distended and tympanitic, prohibiting palpation of its contents. There were now no signs of myelitis.

Thirty-six hours after admission he had an attack of agonizing pain shooting down the left leg, the abdominal distension increased, and vomiting and collapse occurred. From that time until death the pain recurred at intervals, necessitating the frequent use of morphine, and the radial pulses became very thin and rapid, being imperceptible at times. The swelling in the groin gradually diminished, and the left common femoral pulse was felt for a few hours on the third day. On the fourth day a large mass became visible and palpable in the left side of the abdomen, extending from the costal margin to the iliac crest, and from the left kidney region to within three inches of the umbilicus, and exhibiting pulsation of an expansile character. A soft systolic murmur was audible over the swelling. An x-ray examination at this time showed no sign of abdominal aneurysm, but a lateral view was impossible. The swelling increased steadily in size until it filled the greater part of the left side of the abdomen and the meteorism subsided. A spreading discoloration of the skin of the left loin and groin appeared. The day before death, which occurred a week after admission, a collection of fluid was detected in the left pleural cavity, but it was not tapped, as the patient was dying.

At the necropsy he was found to have, at the bifurcation of the aorta, a large sacular aneurysm, which had eroded the bodies of the fourth and fifth lumbar vertebrae to within half an inch of the spinal canal. The posterior wall of the aneurysmal cavity was formed by this eroded surface, and on the left side the junction of the sac with the lip of the vertebral hollow had broken down, allowing the escape of blood into the retroperitoneal tissues, where a huge haematoma was formed. The swelling in the left groin was due to this extravasation of blood tracking down the psoas muscle. The inferior vena cava was indistinguishable two inches below the renal veins, where it became stretched out over the sac of the aneurysm as a fibrous band. The femoral and iliac veins were represented by thick fibrous cords partly recanalized by small vessels running outwards near the bifurcation of the aorta, apparently into the lumbar veins. The arteries of the legs were patent, but a loose mass of laminated clot was partly blocking the openings from the aneurysm into the common iliac arteries. The heart was normal, and the aorta showed no aortitis or atheroma. The other organs were examined and found to be healthy. No signs of syphilitic infection were found. In the left pleural cavity a quantity of blood was discovered that had tracked up through the crura of the diaphragm.

Comment.

The condition revealed at the necropsy explains the course of this distinctly puzzling case.

There can be little doubt that, fourteen years before death, a developing aneurysm of the abdominal aorta caused thrombosis of the inferior vena cava, with its subsequent train of symptoms, and, slowly eroding the vertebrae, gave rise to the attacks of lumbar pain. The myelitis and intermittent claudication must have been due to a deficient arterial supply from the vessels partly obstructed at their origins by the mass of clot in the sac. The sac then broke away from the vertebrae posteriorly, allowing leakage into the left psoas sheath. More extensive tearing preceding death caused the formation of a large false aneurysm, rendering the condition obvious for the first time.

Apart from the rarity of this condition several points of interest arise. In the first place the etiology of the aneurysm is difficult to determine. With the possible exception of the iritis no evidence, clinical or pathological, of syphilitic infection was present. The aneurysm itself, however, was of the sacular variety, and, in the absence of any possibility of occupational trauma, must be considered to be syphilitic. The onset before the age of 20 implies that the infection was congenital or neo-natal in origin, although no stigmata of congenital syphilis were present. It was unfortunate that the grave condition of the patient prohibited the taking of a second Wassermann reaction.

The slow progress, fourteen years, and the absence of lumbar pain, except for two short periods, are remarkable when the degree of bone involvement is considered.

Lastly the absence of any sign of erosion on an antero-posterior radiograph is noteworthy, and suggests the desirability of a lateral view in cases of "backache" of obscure causation.

I have to thank Dr. Stanley Barnes for permission to publish these notes.

OCCUPATIONAL PRESSURE NEURITIS OF THE DEEP PALMAR BRANCH OF THE ULNAR NERVE.

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PRESSURE paralysis of the whole ulnar nerve is not uncommon, either as the result of pressure of the head of the humerus in the axilla following dislocation of the shoulder, or as the result of pressure upon the nerve during sleep, or under prolonged anaesthesia, from the forearm being kept acutely flexed at the elbow, or resting against the sharp edge or back of a chair. It is rare for the nerve to suffer from the results of pressure in the forearm itself, though a certain degree of neuritis may accompany Volkmann's ischaemic myositis as the result of too tight bandaging of the limb. As the result of prolonged pressure in the palm of the hand upon the median nerve branches I have seen numbness and partial anaesthesia of the three middle digits; and prolonged repeated pressure, as in floor scrubbers, or in gardeners, from the use of the trowel, may cause atrophy of the thenar eminence from an occupation neuritis of the branches of the median to the opponens and abductor pollicis.

Until recently I have never seen a pressure neuritis of the deep palmar branch of the ulnar, nor do I know of any description of such condition, but two cases which I saw within a week were so clearly limited to this nerve branch that possibly its apparent rarity may be due to want of recognition. Both cases were identical in the type of paralysis and in the complete absence of complaint of pain or of anaesthesia. The first patient was a bootmaker, whose constant use of one weapon, a knife, in cutting out the leather, had raised horny callosities of the skin of the palm on the inner side of the hypothenar eminence. The other was a motor-cyclist, whose hobby was long week-end rides on a high-powered machine, and whose right hand had suffered from his trick of gripping the handle-bar and controls too tightly. In each case the paralysis was limited to abduction and adduction of the three outer fingers, and adduction of the thumb. There was no wasting of either the thenar or hypothenar eminence, and no weakness of abduction or opposition of the thumb and little finger, but great difficulty was experienced in writing and in picking up a small coin or pin. Neither the first, second, nor third fingers could be moved laterally in abduction or adduction, nor could the little finger be adducted towards the ring finger, nor could the thumb be adducted towards the index, though abduction of the little finger could be performed normally.

It will be remembered that the deep palmar branch of the ulnar nerve supplies the adductor pollicis, the inner head of the flexor brevis pollicis, all the interossei, and the two inner lumbricals. The four dorsal interossei abduct the index and ring fingers away from the middle finger, and move the middle finger laterally, in both directions, while the outer two palmar interossei adduct the first and ring fingers towards the middle finger, and the third palmar interosseus adducts the little finger towards the ring finger. The deep palmar branch of the ulnar, after supplying the hypothenar muscles, passes deeply to follow the course of the deep palmar arch, crossing the metacarpal bones just below their heads. It is here that prolonged and repeated pressure against the inner side of the palm damages the deep palmar ulnar branch, and the recognition of this condition depends on the loss of the lateral movements of the three middle fingers, and of adduction of the thumb and of the little finger, while abduction of the little finger remains normal, and there is no pain or sensory paralysis. A rare abnormality in the nerve supply of the two outer dorsal interossei is sometimes met with, as I have seen on three occasions, when these are supplied by the median nerve, and consequently in such a case these two muscles would escape paralysis from pressure on the deep palmar ulnar branch.