

tory of syphilis. Some years ago he fell, striking on his back, and was unable to work for three weeks. He was in a rain storm for some hours four years ago, followed by a chill. Shortly afterwards he had a pain over the liver and running into the spine. A tingling sensation running upwards from the toe was next noticed. Gradually there became a difficulty in walking, occasional vertigo, ending in complete motor paralysis and tactile anæsthesia of the lower limbs. Whilst the attack was coming on, he noticed that movement of the spine caused pain. There was obstinate constipation, stools passed without his knowledge, sphincter reflex normal, bladder emptied itself automatically, complete anæsthesia and analgesia below a line drawn from the second lumbar vertebra to the iliac crest. Plantar and cremasteric reflexes absent; patellar tendon reflex increased; ankle clonus. There were a great many neuro-fibromata scattered over the patient's body. The slow progress of the case and the presence of these cutaneous tumors made it probable that the spinal growth was of the same nature. An interesting fact was that while the surrounding parts were anæsthetic, sensation remained in the left testicle. A diagnosis of tumor at the eleventh or twelfth dorsal vertebra was confirmed by an operation. Unfortunately, the patient succumbed.

Dr. Peters, who had assisted at the operation, said that there was a very striking and instructive condition of the ano-vesical apparatus. The urine was passed automatically every three or four hours. No sensation of the fullness of the bladder preceded the micturition, and the urine escaped without the will or knowledge of the patient. Nevertheless, when a certain amount of urine had collected, a normal act of micturition took place. A similar condition was present in regard to defecation. The finger placed in the anus, was grasped, though not very forcibly, by the sphincter, and at more or less regular intervals normal defecation took place, of which he was aware only through the sense of smell. It is evident, therefore, that the ano-vesical centres were in a condition of functional health. Further evidence of the healthy condition of the cord below the obstruction was the fact that the muscles and skin were nourished and healthy. There were no bed-sores, and

there were occasional involuntary twitchings in the muscles, which latter also responded to the electric current. It was clear that there was a localized blocking of the transmission of impulses, ascending and descending, between the brain and the lower part of the spinal cord. The preservation of sensation in the left testicle was probably due to the influence of the spermatic plexus, which leaves the cord at the point of compression.

*Operation:* After thorough disinfection of the parts, the position of the vertebral spines was marked with an aniline pencil, and Abbe's incision was made to the right of the line of the spines extending from seventh dorsal to first lumbar vertebra. The bases of the spines were snipped off at their junction with the laminae, the muscles were raised from the laminae on the right side, and the whole drawn with a retractor to the right. Thus was laid bare the whole breadth of both laminae from the eighth to the twelfth dorsal vertebra. These were then divided at each side, close to the articular process, and raised up. Neural arches from ninth to eleventh were removed, laying bare the dura. Hemorrhage was checked by pressure and hot water.

The dura completely filled the neural canal, whilst beneath it could be seen the neoplasm, of a dark purplish red color, very much like that of old clotted blood. The dura having been opened, a portion of the tumor was removed, and the cord was then seen to be flattened against the left wall of the canal. Though flattened, it felt and looked normal. A portion of the dura to which the tumor was adherent was clipped away. The tumor was found to surround the posterior right and anterior surfaces of the cord from ninth to twelfth dorsal vertebrae. When it was all removed, the cord could be seen to move up and down with the respiratory movements. Patient died on third day after the operation. He claimed that he felt an enema which was given him, but this is very doubtful.

Dr. Acheson reported that microscopic examination showed the tumor to be an angio-fibroma, the periphery giving signs of inflammatory infiltration. There are seen in the sections amorphous granules of a sepia brown color. These are found in or near vessels, and are