A case of spondylitis deformans / by W. Allen Sturge.

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A CASE OF SPONDYLITIS DEFORMANS.

By W. Allen Sturge, M.D.

JAMES A., æt. 26, single, worker in artificial flowers, was admitted as an out-patient at the Royal Free Hospital in September 1878, complaining of pain and stiffness in his back.

His mother suffers very much from rheumatism in her back and limbs. A brother has had one very severe attack of acute rheumatism, and has suffered from chronic rheumatism ever since. A second brother has 'gout' very badly in his hands and feet. A sister is subject to very bad sick headaches.

His own health was good prior to his present illness. Ten years ago he had an excoriated sore on the penis, which does not appear to have been followed by secondary symptoms. Eight years ago, shortly before the onset of the present illness, he had a discharge from the urethra. Denies having run any risk of contracting gonorrhœa for some months before. According to his own account he used to be a strong up-standing man, a rapid runner, and more than usually upright in his figure.

Eight years ago there was a sudden onset of pain in the small of his back, which prevented him from stooping, or, if he managed to stoop, made it difficult for him to rise again. It was so severe that 'it took his breath away.' This pain has rarely entirely left him since that time, and he has had in addition pain in the hips and knees. During the last few years his figure has been gradually altering; he has found that he cannot stand up as he used to do. His back and

neck have been getting stiff, rendering it difficult for him to stoop forward, or to turn his head to one or the other side. He has noticed, also, that for some years his chest has been getting stiff, so that it does not move properly when he breathes. The legs, too, have been getting somewhat weak, the right rather more so than the left. From time to time there have been pains in the arms, rendering it somewhat difficult for him to move them about freely. No history of a fall or of accident of any kind.

At the present time he is a somewhat anæmic and weakly-looking man, about 5 feet 5 inches high. The spinal column is remarkably fixed throughout. The lumbar and dorsal regions together form a curve with the convexity backwards; but the angle between the sacrum and the last lumbar vertebra appears to be more acute (backwards) than in the normal condition; for the spine as a whole is on a plane much further back than that of the sacrum. A plumb-line dropped from the most projecting part of the spine falls several inches behind the buttocks; the lower part of the abdomen projects somewhat forwards, whilst the legs are placed somewhat backwards in order to catch the centre of gravity of the body. The curve in the spine is a regular one of large radius, and there is nothing in its appearance to suggest angular curvature. The neck is bent somewhat forwards, which causes him to poke the chin forwards. If the spine be tapped pretty firmly in the dorsal region he says that it gives him pain in the cervical region. Tapping in the cervical region itself is, however, not painful; nor is there any tenderness in the lumbar region. When he stoops forwards to the utmost extent, the knees being straight, he can only carry the tips of his fingers to about 4 inches below the knees. The flexion of the spine in doing this appears to be almost entirely confined to the lower lumbar region, all the rest being held quite rigid.

The cervical part of the spinal column is very stiff. Flexion of the head forwards is apparently only performed by a slight movement of the upper two or three cervical vertebræ. It is sufficient to relax the skin beneath the chin, but falls very far short of bringing the chin down to the sternum. The movement of the head backwards can be performed in about a corresponding degree; but lateral movement towards the shoulders is almost *nil*. Rotation of the head can be effected with greater ease than these other movements, but even this is very deficient. In rotating to

either side, the head is thrown somewhat back and the chin up.

The thorax is very rigid. The breathing is almost entirely abdominal. When he takes a deep breath there is a slight movement of expansion, but scarcely any of elevation. The chest is flat; the heart beats in the fifth interspace in the nipple line, sounds healthy. There is some hyper-resonance over both lungs; but the superficial cardiac dulness is not obliterated. Breath sounds fairly healthy.

Liver dulness begins in the fifth interspace in nipple line. It does not extend below the margin of the thorax.

Appetite good, bowels regular, no headache; the movements of the limbs (including those of the clavicles) are free in all directions. He complains from time to time of 'rheumatic' pains in his right leg.

Ophthalmoscope.—There are in the right eye adhesions of the iris, and a good many patches of uvea on the front of the lens. He says he had an inflammation of that eye about six months ago. For this he was salivated, but without result. He then placed himself under the treatment of another medical man, who looked upon it as 'rheumatic,' and cured it for him.

He says that he had had a previous attack of the same kind about six months before.

Remarks.—The conditions here present strictly correspond with that which has been described under the name of spondylitis deformans, and which is apparently a form of rheumatoid arthritis. The post-mortem changes were described by Professor R. W. Smith in an unpublished paper read by him before the Pathological Society of Dublin between twenty and thirty years ago, and quoted by Dr. Adams in his work on 'Rheumatoid Arthritis.' More recently they have been described by Dr. von Thaden, of Altona, in the fourth volume of Langenbeck's 'Archive.' The changes are very like those which occur in other parts of the body, viz., absorption of the articular cartilages, nodular growth in the articular surfaces of the bone, ivory-like appearance of the bone, tc which must be added absorption of the intervertebral carti lages and the establishment of bony anchylosis between adjacent vertebræ. The second cervical vertebra is particularly liable to become affected, the odontoid process becoming considerably hypertrophied; hence the stiffness of movement in the head seen in the present case.

The disease of the spinal column may coincide with

rheumatoid affections of other joints; but quite as frequently it is for a long time confined to the spinal column, or to the spine and the costo-sternal articulation.

Leyden, in his 'Clinical Treatise on Diseases of the Spinal Cord,' says that the disease is usually one of later, middle, or advanced life, and that it has no connection with gout, syphilis, scrofula, or tubercle. Todd, however, met with a case in a man 25 years old; and he describes also the case of a young girl with chronic rheumatism of all her joints, in whom anchylosis of the whole of the spinal column had taken place. Eulenberg also met with an example of typical spondylitis deformans in a child of 12 years only. The bony outgrowths of the vertebræ may encroach upon the spinal canal; but no case is on record in which paralysis has been traced to this cause. Virchow, however, describes in a paper in his 'Archive' how, in a holiday tour, he came across some bones in the charnel-house of an old monastery which could not have been less than from three to four hundred years old, and which displayed the characteristic change of rheumatoid arthritis. Amongst others, the vertebræ were much implicated by the disease, certain vertebræ were anchylosed, and the spinal canal in some of them was reduced to such narrow dimensions by the invasion of bony outgrowths that it could not admit the little finger. Virchow states it as his opinion that in this case paralysis must have been infallibly produced by the pressure on the cord, resulting from this invasion of the canal.

A case apparently very similar to that which forms the subject of this communication was described by Dr. Hilton Fagge in the 'Pathological Transactions' for 1877. The patient was a man 34 years of age, in whom the arches and spinous processes of the vertebræ were firmly united by bone, the ribs being also firmly anchylosed to the vertebræ both by the head and by the tubercles. In addition to the spinal condition, there was in this case anchylosis of the right hip joint. The patient died of pulmonary disease.

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