LETTSONIAN LECTURES

DELIVERED BEFORE

THE MEDICAL SOCIETY OF LONDON
IN 1869.

By WILLIAM ADAMS, F.R.C.S.,

Surgeon to the Royal Orthopædic and Great Northern Hospitals, etc.

LECTURE II.

Sub-acute and Chronic Rheumatic Affections of the Joints; their Pathology and Treatment.

THIS form of rheumatic inflammation, Mr. Adams observed, most frequently occurs in young adults, free from gouty tendency. The knee-joint is generally affected, and the form of the swelling corresponding to the synovial sac is diagnostic; fluctuation is distinct; there is some increase of heat, and a little pain, but no redness of the skin. It has no disposition to suppurate or ulceration, but generally terminates in resolution with slight stiffness of the joint, which is gradually removed by treatment. A very similar condition is occasionally met with in persons beyond the middle period of life, who have suffered from gout, or rheumatic gout.

Gonorrhœa also forms a complication of sub-acute synovitis, and though only one joint is generally affected, Mr. Adams has seen both knee-joints affected, and iritis, resembling the ordinary rheumatic form of this affection, occurring at the same time.

The diagnosis from strumous and syphilitic synovitis was then given, the latter affection being associated with periosteal inflammation of the articular extremities of the bone.

In the treatment of sub-acute and chronic rheumatic synovitis, Mr. Adams preferred a large blister dressed with strong mercurial ointment, together with iodide of potassium and bicarbonate of potash internally. The stiffness remaining in the joints may be removed by the use of the local steam bath, shampooing, and passive motion.

The next affection described was *chronic rheumatic inflammation of the joints, not commencing in synovitis, chronic articular rheumatism*. In this affection the ligaments of the joints are primarily and essentially affected; and it has a marked tendency to terminate in true bony ankylosis. In this respect it differs from chronic rheumatic arthritis, which Mr. Adams believes never terminates in true bony ankylosis, and also in the absence of any enlargement of the articular extremities of the bones by osteophytes, or nodulated growths of bone developed in the articular cartilage.

The clinical history of this form of chronic rheumatic inflammation has not been well described, but a few well-marked cases had fallen under Mr. Adams' observation in patients becoming gradually ankylosed in many articulations, and reduced to a most helpless condition, without presenting any of the ordinary symptoms of what is called rheumatic gout, or chronic rheumatic arthritis. The articulations of the vertebral column are not unfrequently affected.

In the treatment of this affection, Mr. Adams chiefly relies upon a combination of bicarbonate of potash with ammonia, and when the urine is clear commences the exhibition of sulphur externally and internally, a sulphur vapour bath being taken every day, or every other day. He has also found great advantage from the use of dilute phosphoric acid, in doses of twenty or thirty drops, three times a day. Locally, the use of turpentine liniment and flannel bandages was insisted upon.

The next affection described was *Chronic Rheumatic Arthritis; Rheumatoid Arthritis; or Rheumatic Gout*. For our present knowledge of the pathology and clinical history of this affection, we are chiefly indebted to the labours of Dr. R. Adams, of Dublin, Dr. R. W. Smith and Mr. Colles, of Dublin, and of Mr. E. Canton, of London. The importance of this disease is increased by the fact that its effects have frequently been mistaken for the results of accident, supposed to have been overlooked by the surgeon, such as fracture of the neck of the thigh bone; shortening of the leg from bruise of the hip; and some cases of dislocation, and other obscure forms of injury. When fully developed, all the structures of the joint are involved, but the most important and characteristic structural changes occur in the articular cartilages and the bones.

In the articular cartilages two processes proceed simultaneously from the commencement of the disease—namely, one of fibrous degeneration, occurring in their central portions, and leading to their complete removal, and the other a process of hypertrophy and ossification, proceeding at the margins, and towards the circumference of the articular cartilages, leading to the enlargement and alteration in form of the bones by the development of nodulated growths, and ring-like layers of new

bone at the margins of the articular surfaces. These changes had been first described by Mr. Adams in the 3rd volume of the Pathological Society's *Transactions*, and were opposed to the views entertained by Rokitsansky and other observers, who believed the enlargement of the bones to depend upon a process of inflammatory expansion described as osteoporosis, followed by induration. Eburnation of the bone takes place where the cartilage is removed, and the surfaces are exposed to friction.

These changes were described in detail as affecting the ball and socket, and the ginglymoid articulations. The fibrous structures, including the periosteum, capsular ligaments, intra-articular ligaments of the hip and knee, fibro-cartilages, capsular and intra-articular tendons undergo various changes, some structures being destroyed by atrophy and fibrous degeneration, whilst ossification is proceeding in others.

In tracing the clinical history of this affection, Dr. Adams, of Dublin, believes it commences in chronic synovitis, but Mr. Adams considers this requires further confirmation; at least, cases have fallen under his observation, showing that such is not invariably the case. This disease appears to be of more frequent occurrence in Ireland than in England, and still more frequently met with in Holland, so that exposure to cold and moisture, together with debility and other depressing influences, appear to act as exciting causes of this disease.

With regard to its termination, two pathological peculiarities are observed; one, a remarkable indisposition to terminate in suppuration, and the other that it has no disposition to terminate in true bony ankylosis, motion being preserved by eburnation, but limited in severe cases, by osseous growth from the margins of the articular cartilages, and from the surrounding fibrous structures.

The treatment of this affection was considered to be very unsatisfactory, but Mr. Adams believes the evidence of the inflammatory nature of the affection, at its commencement, not sufficient to call for antiphlogistic treatment; but when synovitis exists, either at the beginning or at a later stage, blisters may be serviceable, but he prefers the perpetual application of warmth and moisture, and, when applicable, the use of the local vapour bath. In the latter stages no local treatment is of use except warmth by flannel bandages.

Internally, Mr. Adams recommends the use of bicarbonate of potash and ammonia, and sometimes blue pill and colchicum, when red sediment is deposited from the urine, or when the latter is turbid, but without phosphatic deposits. When the urine is clear, he advises the use of sulphur externally and internally, and also the free use of dilute phosphoric acid. Several patients under his care had benefited by resorting to the hot sulphur baths of Luchon, in the Pyrenees, where they pay great attention to shampooing and passive movements of the joints. The joints should be kept at rest only in the early stage, but when the articular cartilages are destroyed free motion must be encouraged as promoting the process of eburnation, and preserving useful motion in the joints.

Residence in a warmer climate, during the winter months, was also recommended where practicable.

SPHACELUS OF THE HAND FROM SEPTIC
POISONING, WITH LATENT
SCARLATINA.*

By HENRY VEASEY, Esq., Woburn.

THE patient was Mary A., aged 30, a publican's daughter, of dull and rather livid complexion, intensely asthmatic from childhood, with habitual venous turgescence, and latterly complaining that her hands died, in a sense of numbness and stagnation. Her menstruation had been regular; the last period was on May 25th. She had been two months absent from home, in a family affected by scarlatina more or less severely, but with no new case subsequent to a month before her accident. Desquamation was meanwhile persistent in the convalescents.

On May 27th, while pressing a rusk in preparation for the baby's food, she chipped her finger against a broken edge of the mug, injuring the second phalanx of the right middle finger at its knuckle-joint. It was rather painful as a contused wound; but, as there was no suspicion of ill consequence, and as she was in full health, nothing was thought of the accident. She returned home that evening, and slept ill, rather suffering.

May 28th. The knuckle and hand were intensely painful, the pain extending to the arm, where streaks of redness soon marked out the absorbents; and at evening her whole frame was racked with pain, rigors,

* Read before the South Midland Branch.