LETTSONIAN LECTURES

DELIVERED BEFORE

THE MEDICAL SOCIETY OF LONDON
IN 1869.

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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.

faintness, and agonising distress. There was a slightly inflamed wound at the knuckle, not penetrating the joint, and only rather more tender than other parts of the hand, all which was dusky red, and much swollen on the dorsum to above the wrist. Its palmar aspect was remarkable; it was apparently strangulated, so as to produce death of all its cutis, but without effusion. The arm was swollen to above the elbow, with some streaks and tenderness reaching the axilla. The tongue was furred; the pulse small, sharp, and rapid. She was very faint. I gave her a dose of ammonia and chloric ether, and applied caustic freely to the wound over the hand and arm, drawing a ring round the upper arm where the swelling ceased. Poppy fomentation and linseed poultice were ordered. Opium, æther, and ammonia were administered, with brandy and nutritious food. She was ordered to repose the limb on a pillow.

May 29th. There was rather less suffering. The fingers were livid and insensible. There were vesications on the back of the hand, and ashy decolorisation of the palm.

May 30th. The swelling and inflammation had extended up the arm. There was much constitutional distress and depression. The pulse was feeble, running, sharp; the tongue black with sordes.

May 31st. There was a slight line of demarcation along the second phalangeal knuckles. The little finger was wholly sphacelated. The palm cut like wash-leather. Incisions were made, and evacuated sanies from the back of the hand. There were large sanious vesications extending to the elbow. A red mottled eruption was noticed on the neck, chest, and left arm; a papular one over that hand. The fauces were much injected, with slight ulceration. Before evening, a scarlatinal rash had covered the body, and next day (June 1st) was dying off in a purple hue; the throat retaining its bluish, and a strawberry tongue losing its epithelium, to become, on June 2nd, dry and glazed. Her general condition was improved. The redness and swelling subsided, leaving only fulness on the back of the hand, with pus readily oozing, on incision, through its sloughing texture. The line of demarcation separated the distal phalanges, which were strongly curved into the palm, whose entire surface was one leathery slough. Charcoal poultice, with carbolic acid and myrrh, were applied locally. Bark and ammonia, with liberal support, constituted the treatment.

The further course of this case presents nothing remarkable. Beyond occasional diarrhoea, disturbed respiration, and irritative fever, the constitutional disturbance abated; and separation of the fingers, from the least at its metacarpal joint to the thumb at its last phalanx, required only slight assistance by division of tendons and ligamentous attachments, leaving a mutilated hand—possibly the price of life, that might have been sacrificed to scarlatina in another form.

Were proof wanting that the rash and sore throat, etc., were tokens of scarlatina, such was furnished by the sickening of a child to whom it had evidently been conveyed by the mother in attendance, as nurse, and not given to change of raiment. No case of scarlatina had been known in the neighbourhood. The nurse went home at night to a young family, one of whom, aged 3, fell with scarlatina rash, and on June 3rd had sore throat. Remains of the rash over the thighs, back, and nates, with a characteristic tongue and ulcerated throat, continued evident at my visit on June 6th.

This has been designated a case of "sphacelus from septic poison, with latent scarlatina," because, however proof may be wanting that a broken mug used for preparing the child's food would poisonously infect, yet the wound thence derived was clearly a focus of irritation, impressing a system apparently prone to develop the rash in local tendency to slough, as witnessed in scarlatina anginosa. That a septic influence and arrested circulation, strangulating the vessels even to ultimate death of an extremity, was most connected with the scarlatina poison, would seem highly probable; and this, in a system predisposed to arrested brachial circulation, with nervous irritability in excess, and low vital power—at this particular period more irregular from menstrual effort, much as the gouty action will be intensely developed in a joint injured by severe sprain. The remarkable rapidity with which destructive action proceeded in this case finds some analogy in that form of erysipelatous inflammation affecting the cellular membrane within the orbit, and involving all deeper structures of the eye, wherein the cornea becomes an ashy slough, strangulated by chemosed conjunctiva, and, amid intense suffering with constitutional depression, the visual organ is entirely destroyed. Nothing could exceed the distressing agony endured by this poor girl under the shock of commencing sphacelus, at which period, twenty-four hours from the injury to her knuckle, the whole arm exhibited engorgement, with arrested circulation in the palm and digital extremities, apparently strangulated, and incapable of renewed circulation. The long period during which the system had resisted infection is also noticeable. She felt perfectly well, when, under provocation of this possibly poisonous wound, a more malignant poison

latent in the body was roused to the contest, and all its force centered in the extreme capillaries of a member prone to irregular arrest of circulation, and now vulnerable from within; while entrance had been effected by the foe without, and conveyed along its own channels of circulation to the very citadel itself, betrayed to a lurking enemy.

ON MALPOSITIONS OF THE UTERUS.

By AQUILLA SMITH, M.D.,

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DR. FLEETWOOD CHURCHILL, in his *Outlines of the Principal Diseases of Females* (8vo, 1838), in the chapter on "Retroversion of the Uterus", states that the indefinite knowledge of the ancient writers on uterine diseases was "lost sight of altogether", until Desgranges, in 1715, and his successors, including Dr. William Hunter, in 1754, "threw a new and more accurate light upon this, to them obscure, accident." In the books, "*De Morbis Mulierum*" and "*De Naturâ Muliebri*", attributed to Hippocrates (Pierer's edition, 8vo, 1806, tom. ii), certain malpositions of the uterus are described, but not with as much accuracy as in the following extract from Aëtius.

"De reclinatione, aversione, et recurso uteri, *Aspasie*. Cap. LXXVII.

"In utram verò partem uterus declinaverit, digitorum admotione, et signis insequentibus cognoscemus. Si enim in obliquum declinaverit, propinqui femoris distensio, dolor, perfrigeratio, impedimentum, et torpor indicio erit. Aliquando verò etiam ejusdem arefactio, et ad innitendum ac ambulandum impotentia consequitur. Si verò retrò aut infra inclinatur, torpor ac difficilis utriusque cruris motus sequitur, sæpe etiam motus penitus intercipitur, et ingens vexat dolor. Alvus etiam supprimitur, neque clysterem admittit, nisi genibus innitatur ægra. Flatus item retinentur, et dolores inter sedendum accuntur, præsertim si versus anum reclinatio contigerit. At si ad pubem vergit, imus venter ac pecten extenditur, et dolores ibidem percipiuntur, aliquando etiam urina supprimitur.—

"At verò aversionem versus anum ita curabimus. Primum obstetrici imperabimus, ut digito in anum immisso uterum propellat. Deinde glandem ano subdat quatuor digitorum longitudine, ex galbano et cera paratam, cujus extremitati flum extractionis gratia sit annexum. Aut castoreum aqua dilutum et lana exceptum similiter subdat: aut bitumen aridum, aut pix liquida. Postridie verò irinum aut susinum oleum tepidum, in uterum et intestina infundatur.—

"Sic verò in obliquum retractio inclinatur, primum eadem fomenta adhibeantur: deinde obstetrix specillo cum digito submisso, uteri collum dirigat, ægra verò in contrarium parti affectæ latus, aut supina, decumbat.

"Mulier autem acclivi capite decumbat, et si compositus rectè uterus rursus retrahatur, foetida statim naribus admoveantur, et sternutationes provocentur, et si urina supprimatur, fistula vesicæ ad hoc destinata promociatur, et si ab his exacerbatio fuerit exoluta, quiescendum est."—(*Medice Artis Principes*, fol. 1567. Aëtius Tetrabiblos iv, sermo iv, p. 819.)

The author appears to have been acquainted with different forms of malposition of the uterus, but particularly with retroversion, the chief symptoms of which are clearly indicated. The treatment for retroversion consists in introducing the finger into the rectum, and pushing up the uterus, and subsequently inserting in the bowel a mass composed of galbanum and wax, four fingers in length, to the end of which was attached a string for the purpose of removing the mass, or wool soaked with castor diluted with water might be employed; the latter application is termed *Aspasie*, and is similar, in the principle of its application, to the medicated cotton-wool which has been recently employed in London; as, "Where there is vaginal leucorrhœa, Dr. Murray passes a roll of cotton-wool or lint, some four inches long, well covered with the glycerine and tannin, through the speculum (Ferguson's), which, when withdrawn, leaves the plug in contact with the vaginal walls, and, after an interval of a few minutes, this is removed."—*Lancet*, January 2nd, 1869, p. 10.) He also recommends tepid oil of flower-de-luce, or of lilies, to be injected into the uterus and rectum.

The treatment for oblique malposition is remarkable for the method of correcting it, by placing the patient in a suitable position, and introducing a probe into the os uteri for the purpose of rectifying the malposition. The author was also acquainted with the use of the catheter; and points out the necessity of placing the patient on her knees when it was necessary to move the bowels by means of a clyster. It also appears that Aëtius did not condescend to perform the necessary manual operations, which he delegated to the midwife.