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FOUR CASES OF RHEUMATIC NODULES.

WITH COMMENTS.

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Two Cases of Subcutaneous Rheumatic Nodules. By Dyce Duckworth, M.D. *Read November* 24, 1882.

CASE 1.—Sarah Clarke, æt. 24, a domestic servant, living in Islington, came to St. Bartholomew's Hospital on May 31, 1882, complaining of certain painful swellings upon the right hand and knee.

She was well-nourished, of sallow complexion, with slightly vascular patches on the cheeks, and dark-haired (asthenic arthritic diathesis). Has had no serious illness, and not had rheumatic fever or chorea. For the last eight years has occasionally suffered from pains in limbs and the joints, and these have been much worse of late. Cracklings are felt on moving the knee and shoulder-joints.

Eight months ago first noticed swellings on her right hand, elbow, and knee. These are found most numerous on the right hand. Inside the thumb two rather large nodules are seen, another is situated on the forefinger on the distal side of the second phalanx, and one lies over the last joint of the middle finger. The extensor tendon of the middle finger on the hand is also covered by a nodule. Two are found inside the left thumb, one on the extensor tendon of the left forefinger, and one on the last joint of the second finger. The fingers generally are knotty at the joints, and the right little finger is twisted outwards from the last phalanx. A nodule is found on the right olecranon and several over the patella. The bursa over the latter is swollen.

These nodules are quite subcutaneous, always tender when pressed, and sometimes they are very painful, always aching more in damp weather.

There was no known history of rheumatism in the family. The tongue was pale and flabby. On careful examination of the heart, it was found that the apex-beat was in natural situation, and that the first sound was slightly reduplicated at the apex and somewhat rough. The urine was alleged to be occasionally thick.

I had casts made of the right hand and knee which illustrate the situations and sizes of the nodules. Some of these were very small, apparently in their earlier stage of formation, and pale. They grew redder as they enlarged.

I did not see this patient from June 14 to October 28, during which period she had been treated with cod-liver oil and iodides of potassium and iron.

On examination at the latter date it was found that some new nodules had appeared, and that of the older ones some had grown larger and redder. Thus, over the first phalangeal joint of the left ring finger there is one, and two have formed at the last joint of the middle finger (constituting Heberden's nodes), two have appeared over the left patella, and several have grown on the great and small toes of both feet.

There has been continued aching in the joints, and much about the deltoid muscles.

The apex-beat of the heart seemed a little displaced outwardly in the line of the left nipple, and more forcible than formerly. Roughening and slight reduplication of the first sound still appreciable.

The tongue presented a thin yellowish fur. Bowels acted regularly. Has been much kept indoors, only going out once a week. She has found that when washing with soda in hot water the joints of her hands ache and swell, but do not become painful if no soda is used.

I prescribed cod-liver oil and compound confection of sulphur of the hospital Pharmacopœia.

Case 2.—Ellen Lemay, æt. 9, a school-girl, living at Hackney, was brought to me on June 17, 1882, by my colleague Mr. Walsham on account of subcutaneous rheumatic nodules.

She was a fair-haired and fair-skinned child, with blue eyes. Her nose and finger-ends were clubbed and dusky in tint. Nails striated. Teeth well-enamelled, edges serrated. Tongue clean.

The history showed that there were pains in the feet, knees, and arms two months previously, and she kept her bed for a week at that time. The legs and hands swelled "as if there was dropsy." Never had chorea.

At the same time, two months ago, her mother noticed the little nodules on the ankles, elbows, and knees.

There are now to be seen subcutaneous nodules on the sheath of the extensor tendon of second right middle finger,

over metacarpus; over right olecranon, moveable; on the spine of the sixth dorsal vertebra, two rather large over the right patella, two or three over the left patella, and one on the right external malleolus.

The heart shows signs of mitral regurgitation well-marked.

July 5.—The nodules over both patellæ look bigger than at last visit. A cast was taken on June 17. The child ceased to attend subsequently, and on writing to the parents' address it was found that the family had moved. There was no reason to suppose the cardiac disease to have been of congenital origin.

Remarks.—Both of these cases supplied well-marked examples of rheumatic subcutaneous nodules. The rheumatic history was sufficiently well-established in the second case, and there was no mistaking the rheumatic habit in the first patient.

Both instances were in females, in which sex the majority of cases have been met with. The nodules have lasted for a longer period in the first case than has been observed in any previously recorded instance, viz. fourteen months, and even now there is activity in those existing, and tendency to fresh formation. Five months is the longest recorded period during which these rheumatismal nodes have lasted. The heart was affected in both cases.

The several facts elicited from both instances go to support the careful observations on this affection made by Drs. Barlow and Warner, and communicated by them to the International Medical Congress last year.*

Note.—S. C. (Case 1) came to report herself in October, 1883. She had had a good deal of pain in her joints, and the nodules were little changed for the better. Quinine and iodide of potassium gave her great relief. There was no marked alteration in the condition of her heart.

Case 3.—*Rheumatismal Cutaneous, Subcutaneous, and Periosteal Nodules: probable Syphilitic Taint.*

Marian F., æt. 38, housewife. Twice married; one child by her first husband, never pregnant by second. Came to St. Bartholomew's Hospital on December 19, 1882, under the care of Mr. Langton, and was transferred to me by him in February of this year. She complained of numerous small tumours on

* *Trans. Internat. Med. Cong.*, 1881, vol. iv, p. 116.

the arms and legs, which were annoying and painful. She was a healthy-looking woman, with clear complexion and fair hair. Had lost most of her teeth. Her story was that she noticed the first tumour on her right elbow in September, 1879. This was quickly followed by another on the right knee, and the others have been observed to come since that time. There was no noteworthy medical history in her case save the following, which, in view of that reported (v, p. 188) by Dr. Stephen Mackenzie in a case shown to this Society some weeks since, seems to be of some importance :—In June, 1879, it appears that this patient had a rash which extended over her face, chest, and arms. It was, she states, like measles, and about the same time she had a sore throat. These troubles were cured by some pills recommended to her by a friend, said to contain sarsaparilla.

The nodules appeared three months afterwards. She complains that they are now the seat of sharp, piercing pain, worse at some times than at others, and especially are they annoying in cold weather.

There is no personal history of rhenmatism or of chorea, but her mother suffered from rheumatism, and one of her sisters has had three or four attacks of rheumatic fever.

The heart is fairly normal as to position of apex beat, and there is perhaps a slight roughness of the first sound at the apex.

But little change has occurred under treatment up to the present time. Iodide of potassium, quinine, and salicylate of soda have been employed, and belladonna plaster has been applied over the larger and more painful nodules.

The tumours are situated in the following positions :

Right arm.—One over the posterior surface of ulna, about two inches from the olecranon, very freely moveable, not adherent to the periosteum, circumscribed, about the size of a penny. This has become softer, smaller, and more moveable under treatment. There are two more lower down on posterior surface of ulna, much smaller in size, and firmly adherent to the periosteum. The first of these two is about four inches from olecranon, and the other about a finger's breadth lower down. There are none over the radius. There is one on the anterior surface of the wrist, firmly fixed to anterior ligament, about size of a pea. One small one in palm of hand over the third metacarpal phalangeal articulation, fixed to fascia, about size of a pea. One on outer side of dorsum of third phalanx of little finger.

Left arm.—One over the posterior surface of ulna, four inches from olecranon, small, slightly moveable, but not adherent to the skin. None over the radius. On the hand there are six, all small, adherent to skin.

Right leg.—One over lower angle of patella, moveable, not attached to the bone, ill defined, about the size of a penny. One about two inches below patella, much firmer, freely moveable, adherent to skin, well defined, about size of a three-penny piece. Numerous small ones down the crest of the tibia to within five inches of ankle, firmly adherent to periosteum. Two or three small ones over upper part of fibula, firmly adherent. None on the foot.

Left leg.—One over lower angle of patella, well defined, about size of a shilling, freely moveable, non-adherent. About two inches below first is another tumour, smaller and freely moveable. Along the upper two thirds of crest of tibia numerous small nodules can be felt firmly adherent to periosteum. Patient complains more of these tumours than of those on the right leg.

Symmetry in disposition of the nodules is fairly marked along the ulnæ, and more so on the lower extremities. No nodules found on the scalp, ears, scapulæ, or spinous processes of vertebræ.

Dec. 28.—Patient states that all the larger tumours have become smaller, but are much more painful, especially at night. Pressure and pricking cause much pain.

Right arm.—Patient has noticed a pain running down front of forearm. The tumours on the posterior surface are smaller and more moveable. On the palm of the hand two small nodules have appeared opposite third and fourth metacarpal phalangeal articulation.

Left arm.—No change. The nodules in palm are smaller.

On the legs the tumours seem smaller, but are much more painful, so that patient can hardly stand for any time.

Having regard to the clinical features of the case, and to the family rheumatic predisposition, I venture to call these nodules rheumatic in their nature.

It is not without interest to call attention to the possible existence in this instance of syphilitic taint. The history elicited of a roseolar rash and sore throat, together with other circumstances in the story of the patient, cast a very strong suspicion of this modifying influence in the case.

Be this as it may, I believe that a more extended study of

these cases will show that there are several types or varieties of them.

This case, as well as one shown to the Society at the beginning of this session (v, p. 1) illustrates a form in which the nodules are very persistent, and are attached to skin and to periosteum. In Dr. Barlow's and Dr. Warner's cases, which were the first to be brought forward, the affection was noted chiefly in children and young adults; the nodules were subcutaneons and did not last more than a few weeks or months.

In this case there is history of the affection having lasted for two years and eight months, and in the one shown last year by me the nodules still remain, although becoming slowly smaller, being now of twenty months' duration.

This patient was in much the same condition at the end of 1883.

Case 4.—*Case of Rheumatic Fever in which Nodules appeared on a Parietal Bone.*

A. C., æt. 14, a pale, thin girl, was admitted into Elizabeth Ward under my care on October 31st, 1883. She had twice had rheumatic fever, and was the subject of cardiac disease (double mitral murmur). She came in with a history of wandering articular pains for two weeks before admission, and her temperature was 102°. There was only slight pain in the left elbow. Quinine and iodide of potassium were given. For some days various joints were tender. On the 8th November attention was directed to the right temporal ridge where two or three small nodules were detected arising from the pericranium, not larger than split peas or wheat grains. No others were found elsewhere. On the 19th one nodule had disappeared, and by the end of the month all of them had passed away. She left the ward on the 2nd December.

Before the appearance of Drs. Barlow and Warner's communication in 1881, several cases of ephemeral nodules had been observed in the wards of St. Bartholomew's Hospital, notably in those of Dr. Andrew and of Mr. Thomas Smith. I can also recall a well-marked case in a young adult about fifteen years ago in which nodules appeared along one ulna, and which were considered to be rheumatic both by Mr. Howard Marsh and myself.

It is probable that the cases described by Drs. Barlow and Warner constitute a class by themselves occurring chiefly in young persons. The nodules appear almost suddenly, and within a few weeks pass away. They have been termed ephemeral by MM. Troisier and Brocq.* In several cases which have been brought before the Clinical Society by Dr. Stephen Mackenzie, Dr. Drewitt, Dr. Fowler, and myself, the nodules have been of larger size, of slower growth, and of persistent character. It is certain, however, that cases of ephemeral nodules are met with in adults, associated too, as in the case of young patients,with cardiac lesion. Thus Dr. Barlow has met with a case in a man, æt. 25,† who later on developed a cardiac murmur. Dr. Samuel West has related to me a similar case, and others were mentioned in the discussion on Dr. Fowler's case. They have also been found attached to periosteum. Drs. Barlow and Warner found that the nodes were subcutaneous and that the common attachments were to tendons, deep fasciæ, and, in one case, to pericranium. Again, some nodules have been met with having distinct attachment to the true skin.

Some of the larger nodules felt of firm cartilaginous hardness in Case 3, and this was also the character of those in a case recently shown by Dr. Fowler,‡ yet their structure was found to consist of wavy bundles of fibrous tissue.

It is noteworthy in relation to this point to find that Dr. Angel Money in his report of the microscopical appearances of a nodule removed from the back of the elbow of a girl, æt. 10½ years, who had several in connection with rheumatism and heart-disease, and who died of the latter, remarks that the tissue much resembled that of fibro-cartilage.§ This is the variety of cartilage that might be looked for, considering the common situations of selection of these nodules.

The life-history of these larger and persistent nodules has yet to be observed. Treatment does not appear to be of much avail. I have seen the best results from repeated paintings of iodine liniment, and Dr. Barlow has found repeated blistering useful. The ephemeral variety call for no special

* *Revue de Médecine*, Paris, 1881, p. 297.
† *Lancet*, Jan. 19, 1884, p. 115.
‡ Ibid.
§ *Path. Soc. Trans.*, vol. xxxiv, 1883, p. 49. Dr. Money kindly showed me these specimens. They were rich in tracts of dense fibrous tissue, forming a refracting reticulum enclosing cells. Many nucleated cells were also seen which appeared to be developing into fibres. One could not pronounce with certainty that there were true cartilage cells amongst the bundles.

treatment. Dr. Fowler directs attention to the fact that the nodules commonly appear upon localities subject to pressure.

I take this opportunity to direct attention to a typical and well-reported case by the late Dr. Hillier in his book on the *Diseases of Children*, p. 238, 1868. This is the earliest case I can find record of. A child, æt. 5 years, suffered from severe chorea attributed to fright. About the sixth week of the ailment, nodules appeared under the scalp, firmly attached to the bone, not tender. These increased in number, and there was some fever. A swelling also occurred on the inner condyle of one femur. A systolic apex murmur was detected at this time. In two weeks some of the nodules had disappeared, one on the occiput became larger and tender. The lower end of the right ulna became enlarged. Within three months from their first appearance they passed away. Dr. Hillier attributed them to rheumatic periostitis. The cardiac murmur continued and was evidently due to mitral regurgitation, which induced some hypertrophy.

References to recently reported Cases.

1. Heart Disease and Subcutaneous Fibrous Nodules following Rheumatism. Microscopical report on Nodules. Dr. Cavafy. *Path. Soc. Trans.*, vol. xxxiv, 1883, p. 41.

2. Morbus Cordis, Rheumatic Nodules. With Microscopical Report. Dr. Angel Money. Loc. cit., p. 45.

3. Case (living) illustrating the analogy between Rheumatic Nodules of Children and Heart Disease. Dr. Drewitt. Loc. cit., p. 50.

4. Case of Subcutaneous Nodules occurring in a patient the subject of Syphilis, and with very indefinite connection with Rheumatism. Dr. Stephen Mackenzie. *Clin. Soc. Trans.*, vol. xvi, 1883, p. 188.

5. Case shown by Dr. Fowler to the Clinical Society, Dec., 1883. Particulars read on Jan. 11th, 1884. v. *Lancet*, Jan. 19th, 1884, p. 115.

6. Case of Nodules on the Fingers, shown by Mr. Godlee to the Clinical Society, Feb. 22nd, 1884. Rheumatic history not clear.

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