

Gonorrhœal rheumatism, unlike acute rheumatism, but like rheumatic gout, frequently attacks the eye.¹ The ocular affection in these cases is that form of "gonorrhœal ophthalmia" which has been described by authors as "metastatic or sympathetic;" but the difference in the mode of origin, symptoms, prognosis, and treatment, between this form of ophthalmia and purulent conjunctivitis arising from contagion, is so great, that it would be desirable to distinguish the two by different names, and to drop altogether the term *gonorrhœal ophthalmia*, as applied to that ocular affection which accompanies gonorrhœal rheumatism.

In the first two editions of this work I published a *résumé* of twenty-seven cases which I had been able to collect from various sources of so-called "metastatic gonorrhœal ophthalmia," and from which I drew the following conclusions:

In all the cases the eye-disease was preceded, attended, or followed by rheumatism. In a majority of the attacks the ophthalmia preceded the rheumatism.

In about two-thirds of the cases of which we have sufficient details to enable us to determine the seat of the ophthalmia, the sclerótica and iris were chiefly affected; in the remaining third, the conjunctiva. In the latter class, it is sometimes noted that there was purulent discharge and chemosis; but the inflammation does not appear to have assumed the severity of gonorrhœal ophthalmia from contagion, since only one case terminated in ulceration of the cornea, and most of the cases yielded readily to treatment.

We may conclude, therefore, that gonorrhœal rheumatism, like rheumatic gout, may attack any of the ocular tunics, though it most frequently involves the sclerótica, from which it may extend to the conjunctiva, iris, or other tissues.² It must be borne in mind that the vascular connection of all the tissues of the eye is very intimate, and that the inflammatory process is never wholly confined to one portion of the globe. It is highly probable, I think, that many cases of gonorrhœal rheumatic ophthalmia, which have been described as conjunctivitis, have in reality been instances of conjunctivo-scleritis, in which the injection of the conjunctival vessels has masked that of the sclerótica. The orbital and circumorbital pains, which are often mentioned, would indicate this. At the same time, it must be confessed, that in some instances the chief seat of the disease has been the conjunctiva, and that the presence of a muco-purulent discharge and a certain degree of chemosis, have rendered these cases readily

¹ "In true rheumatism, the eye seldom suffers; so seldom, that I find no record of any affection of that organ in more than 4 out of the 379 cases of acute and sub-acute rheumatism admitted into St. George's Hospital, during the time I held the office of Medical Registrar. But in rheumatic gout, the eye is not infrequently implicated. It was inflamed in 11 out of the 130 cases of rheumatic gout admitted during the same period; and it has suffered more or less severely in five out of 75 cases, which have fallen under my own care at the hospital." (Fuller.)

² These cases do not confirm Rollet's statement, that gonorrhœal rheumatic ophthalmia is always a kerato-iritis.

mistakable for gonorrhœal ophthalmia from contagion. The milder character of the disease, the history and habits of the patient, and the existence of rheumatism, are, in such instances, the chief elements on which to found a diagnosis. When a patient has had an affection of the eyes and joints in previous attacks of gonorrhœa, or when gonorrhœal rheumatism coexists with an ophthalmia which does not present the severe symptoms of purulent conjunctivitis, there is a strong probability that it is of the rheumatic form, even though the conjunctiva appears to be chiefly affected. Not unfrequently, also, rheumatic ophthalmia, after entirely disappearing from one eye, involves the opposite eye or returns a second time to the one first affected, a course never pursued by gonorrhœal ophthalmia from contagion.

In by far the larger proportion of cases, however, the symptoms of gonorrhœal rheumatic ophthalmia are those of scleritis, iritis, or kerato-iritis, either separate or combined. I shall not attempt to describe the characteristic features of these different forms, since they are identical with those of the same affections arising from other causes.

I will merely remark that when the iris is involved, it generally appears to be so secondarily, and that the inflammation affects it to a less extent and more superficially than in other forms of iritis; hence that there is less danger of adhesions to the capsule of the lens and of atresia iridis, and that tubercular excrescences are probably never seen upon its surface.

DIAGNOSIS.—The admission of gonorrhœal rheumatism as a distinct disease, is by no means dependent upon the question whether it presents any symptoms different from those of ordinary rheumatism. Inflammation of the epididymis, identical with swelling of the testicle attendant upon gonorrhœa, may be excited by other causes; and even if no diagnostic signs of the rheumatism caused by urethritis be admitted, we should still be warranted in using the term "gonorrhœal rheumatism" as indicating the connection between the two diseases.

It is evident, however, that the disease now under consideration differs in some respects both from acute rheumatism and rheumatic gout, though much more closely allied to the latter than to the former.

It differs from acute rheumatism in the absence or slightly marked character of its premonitory symptoms; in the less degree of constitutional disturbance which attends it; in being limited to a few joints; in its predilection for the synovial membranes; in rarely attacking the heart, but frequently the eye; in its persistency; and in seldom affecting women. It differs from rheumatic gout in the fact that hereditary influences, so far as at present proved, have no part in its production; also in the frequency with which it attacks the knee-joint; in its preference for the male sex; and in its rarely leaving any permanent traces of its invasion.

In a given case of this kind, therefore, it may at times be extremely

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difficult to determine whether our patient has an affection of the joints dependent upon his urethritis, or whether his rheumatism is simply a coincidence; if, however, there be but little constitutional disturbance; if only a few joints, and particularly the knee, be affected; if the disease be chiefly confined to the synovial membrane—as shown by the articular effusion, and the slight degree of heat and redness externally—and if it exhibit but slight tendency to migrate from one joint to another, then there can be little question that the gonorrhœa and rheumatism bear to each other the relation of cause and effect. The probability will be still further strengthened, if the patient has never been subject to rheumatism; or, *a fortiori*, if he has had it only in conjunction with previous attacks of gonorrhœa.

NATURE.—The power of exciting rheumatism, exercised by gonorrhœa in certain cases, has often been advanced as an argument to prove that the latter disease is a modified form of syphilis; and it has been asserted that the rheumatism is due to the absorption of a specific poison from the urethra. This idea has probably derived additional weight from the supposition that no other satisfactory explanation could be given of the connection between these two diseases, and before such was found, the theory of a syphilitic or gonorrhœal virus was thought to be the only alternative. The question has been asked: If the rheumatism is not produced by the absorption of a specific poison, how is it produced? But such a process of reasoning is founded on a gross overestimate of our knowledge of cause and effect in disease. The connection between gonorrhœa and rheumatism is only one of many instances, in which the link which binds two diseases together escapes us, although the union is plain and unquestionable. Who, for instance, can account for the intermittent fever which is sometimes occasioned by a stricture of the urethra, or explain the connection between chorea and rheumatism? a connection so intimate that a large proportion of children who have the one will have the other; or the reason that disease of the supra-renal capsules causes bronzing of the skin? And so throughout the etiology of all diseases, if for a moment we endeavor to divest our minds of the familiarity which daily observation has given to the connection between them and causes which produce them, in how few instances do we really understand the mechanism of the process!

Facts which occur but rarely, excite wonder; if frequent or coinciding with other known phenomena, the mind receives them without distrust. Is it then an isolated fact that a local affection, entirely destitute of specific properties, is capable of exciting rheumatism? By no means. Dr. Fuller, who believes that the proximate cause is a poison generated in the system (not absorbed from without) as the result of faulty metamorphic action, thus speaks of the influence of local disease: "One part of the animal economy hinges so closely on the other, that local mischief occasions general disturbance, and under certain circumstances appears to induce a state of system favor-

able to the generation of the rheumatic poison; a state of system arising, be it observed, not as a direct and immediate consequence of suspended secretion, but as a sequel of perverted function gradually taken on by the system generally, in consequence of imperfect or morbid local action. Excessive venery and long-continued debauchery are frequently productive of rheumatism, and so is immoderately protracted lactation. The phenomena of gonorrhœa afford an admirable example of how local diseases gradually give rise to general derangement of the system, and so to the production of the peccant matter of rheumatism."¹ This connection between local diseases in general and inflammation of the joints is also fully recognized by other observers; it need not therefore surprise us, nor is there any necessity to suppose the absorption of a specific poison, when we find that rheumatism can be excited by inflammation of the urethra.

Moreover, evidence is not wanting to show that the phenomena of gonorrhœal rheumatism cannot be explained on the ground that the syphilitic or any other specific poison has been taken into the system from without. In order not to extend this subject to too great length, I will merely enumerate the chief points of this evidence:

1. If gonorrhœal rheumatism were due to the absorption of a virus, it ought to be a very frequent disease, considering the multitude of patients affected with gonorrhœa; it is, however, quite infrequent.
2. On the same supposition, it ought to run a regular and definite course, like specific diseases in general.
3. One attack, also, should afford immunity from, or at least partial protection against, subsequent attacks in the same person.
4. No evidence of the absorption of a virus is found in an examination of the lymphatic vessels or ganglia in gonorrhœa, as in syphilis. Even in cases of gonorrhœal rheumatism, the absorbents in the neighborhood of the genital organs retain their normal condition.
5. Urethral rheumatism has repeatedly been known to occur in connection with urethritis which had been excited by the use of bougies, or by intercourse with women during the menstrual period. If it can thus be caused by a simple urethritis, why is it ever necessary to attribute it to a "virulent gonorrhœa?"
6. None of the known symptoms of syphilis bear any more than the slightest resemblance to gonorrhœa.

TREATMENT.—It is evident that we cannot deduce the treatment of gonorrhœal rheumatism from that of acute rheumatism, as has sometimes been done by writers on this subject; nor, again, entirely from that of rheumatic gout, although here it is not improbable that a somewhat similar line of treatment may be found applicable. But if we recognize a special cause and certain peculiarities in the symptoms of gonorrhœal rheumatism, the treatment of this disease demands investigation independent of any preconceived notions derived from our experience with kindred affections.

¹ Fuller on Rheumatism, p. 35.

The amount of constitutional disturbance attending the commencement of an attack of gonorrhœal rheumatism is rarely sufficient to require active antiphlogistic measures. The administration of an emetic, or a free purge, as from five to ten grains of calomel, followed by castor oil or Epsom salts, is commonly sufficient to allay the febrile excitement, and has the additional advantage of correcting the condition of the digestive organs, which are usually at fault. Rest is of the first importance, and the diet should be proportioned to the severity of the febrile action. The chief means of combating the local inflammation is to be found in the abstraction of blood from the neighborhood of the joints. Cups or leeches may be applied, and repeated as often as the case requires. They afford marked relief to the pain, often arrest the progress of the disease, and hasten its resolution.

After the more acute symptoms have been subdued, or even at the outset when the disease is from the first of a subacute character, the greatest benefit will be derived from blisters. These are especially applicable, when a large joint, like the knee, is attacked, and when an effusion within the capsule is a prominent symptom. The vesicated surface may be dressed with simple cerate with the addition of five grains of morphine to each ounce, and so soon as the surface heals a fresh blister may be applied. If strangury ensue, the daily application of strong tincture of iodine may be substituted for the unguentum lyttæ. Velpeau recommends that the joint be kept constantly smeared with mercurial ointment, to which some preparation of opium has been added.

Dieulafoy¹ has employed aspiration in cases of effusion into the knee-joint from gonorrhœal rheumatism, but states that such cases are peculiar and more obstinate than those in which the effusion is dependent upon other causes. The puncture of the knee gives relief, but the liquid soon forms again.

Ricord and some other writers advise the internal administration of colchicum, alkalies, and the salts of potash, as in rheumatism dependent upon other causes, but the reports of cases in which these remedies have been employed are far from proving their efficacy.

Prof. Hardy² has employed the salicylate of soda, now so much in vogue for articular diseases, and reports that under its influence the spontaneous pains have diminished, but those felt on walking were just as severe. In short, the salicylate does not seem to exert the same beneficial effect as in ordinary articular rheumatism.

The occasional use of an emetic or purge has in the hands of several surgeons been found to be of decided advantage. Rollet speaks highly of vapor baths. Copaiba and cubeba have no effect upon the rheumatism, and can only be required for the urethritis, which, in most cases, however, is more satisfactorily treated by local measures.

Meanwhile the treatment of the urethral discharge on which the

¹ Gaz. hebdomadaire de médecine, Paris, Feb. 22, 1878.

² Gaz. d. hôp., No. 149, 1877.

rheumatism depends should not be neglected. Unless this be entirely arrested, there is always danger of a relapse. In many of the cases reported, the rheumatism has repeatedly returned at intervals of several months, so long as the exciting cause continued. The measures already recommended for the treatment of the gonorrhœa and gleet should, therefore, be actively employed, at the same time that attention is paid to the affection of the joints.

When gonorrhœal rheumatism occurs in persons of broken-down constitution, or when the general health becomes impaired by the continuance of the urethral and articular disease, it is necessary to resort to hygienic measures, and frequently to the administration of tonics, as preparations of iron, iodine, cod-liver oil, bark, etc. These remedies, together with fresh air and good diet, should by no means be neglected as soon as the patient is found to be debilitated. Barwell believes that gonorrhœal rheumatism depends upon slight purulent infection, and recommends large doses of quinine.

A very efficacious method of treating the swelling which often remains after the acute symptoms have subsided, is by means of strips of adhesive plaster so applied as to exercise compression and at the same time render the joint immovable. Supposing the knee to be affected, the limb should be bandaged from the toes up to the point where the plaster is to commence, or just below the swelling. The strips should be of about two fingers' breadth, and each one, first passed behind the limb, be brought round in front, and its ends made to cross like the letter X. One strip after another is applied, each overlapping the preceding for about one-third its width, until the whole joint is covered, when four or five additional layers are superposed in the same manner, in order to insure a sufficient degree of stiffness, and the whole enveloped in a bandage. I can speak very decidedly of the good effects of Martin's bandage and the plaster of Paris splint, in this and other chronic affections of the joints.

Mr. Milton,¹ whose accurate and systematic observations are always worthy of quotation, formerly employed in the acute stage the hydrochloride of ammonia in half-drachm doses every two or three hours, and, if this failed, the nitrate of potassa in scruple or half-drachm doses every three or four hours. After the severity of the disorder was checked, he resorted to the iodide of potassium and the wine of colchicum, the latter to be given in no less doses than a couple of drachms daily, and the affected joint was to be blistered.

More recently, however, Mr. Milton, "doubting whether I (he) was not searching in a wrong direction," has tried, in one or two cases in debilitated subjects, a mode of treatment which, he says has proved highly successful, and which is so agreeable as to lead any patient suffering with this disease to place himself under his care. This treatment consists in the administration of a bottle of Burgundy daily, a large glass of good milk, and the best rum at bedtime, a restorative

¹ Pathology and Treatment of Gonorrhœa, 4th ed., 1876, p. 273.

diet, including plenty of fat ham and bacon, quinine in five-grain doses three times a day, an aperient pill containing colchicum to keep the bowels open, the bimeconate of morphia if a sedative is required, and a sulphur fume-bath occasionally, to be followed by a vapor bath!

In many cases iodide of potassium in quite large doses is very efficacious. I frequently prescribe this remedy, with an alkali, as follows:

R. Potassii iodidi, ℥viiij	10/40
Potassæ tart., ℥j	30
Aquæ, ℥viiij	240
M.	

One tablespoonful three or four times a day in a wineglass of water.

The iodide may be increased in quantity if necessary. In cases in which many joints or synovial sheaths are involved, much benefit follows the use of the mercurial bath taken every day, or second or third day.

When the eye becomes inflamed, local depletion by means of leeches or cups to the temple may be called for. If the conjunctiva be involved, the strictest cleanliness should be maintained, by frequent bathing with tepid water. Astringent collyria are less frequently called for than in conjunctivitis independent of any rheumatic taint; if used, their effect should be carefully watched, and if they fail to afford relief, they should be omitted. When the iris is implicated, the pupil must be dilated by atropine, and mercurials administered, as in other forms of iritis.

CHAPTER XXII.

VEGETATIONS.

VEGETATIONS are papillary growths springing from the skin or mucous membrane, chiefly in the neighborhood of the genital organs, and identical in their nature with the warts which are so common upon the hands. They are not, strictly speaking, venereal, since they are not necessarily connected with either of the diseases originating in sexual intercourse. It is true that they are most frequently observed in men and women who have been affected with gonorrhœa, balanitis, chancroids, or syphilis; but this is simply because the skin or mucous membrane has for a time been moistened with an acrid secretion which has favored the abnormal development of its papillæ. They are found in young children, with regard to whose purity there can be no suspicion; and also in adults who have never suffered from any venereal disease whatsoever. Again, they are not unfrequently met with during pregnancy; the increased secretion from the vagina and the determination of the blood to the pelvis at this time being highly favorable to their development.

The importance of these growths has been very much exaggerated. Thus, they have been regarded as syphilitic, and as an indication of the necessity for specific remedies; and this, too, in spite of the generally recognized fact that mercury has no effect whatever in their removal. Their only connection with syphilis is when they spring from the surface of a chancre, mucous patch, or other general lesion, upon which they are a merely accidental formation. The sore which serves as their base may require a mercurial course, but the superadded vegetation in itself presents no such indication.

Again, it is often said that they are contagious; and some semblance of truth for this supposition has been found in the fact that when situated upon one of two opposed surfaces, as the labia or upper and inner parts of the thighs, similar growths not unfrequently spring up upon the opposite; and somewhat doubtful cases have been reported in which, as alleged, vegetations have appeared upon men after connection with women who were similarly affected.¹ But such instances are readily explained on the ground that the acrid secretion from vegetations when applied to neighboring parts, and, possibly, when

¹ Thus, long since the above was written, we read in Zeissl (op. cit., 3d ed., 1875, t. i., p. 150), that he has frequently observed the development of vegetations in persons who had for some time had intercourse with the opposite sex affected in the same manner. He also quotes Dr. Lindwurm, of Munich, as having successfully inoculated vegetations. Yet Zeissl does not believe that there is anything specific in these excrescences.