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RHEUMATIC AND GOUTY AFFECTIONS OF THE EYE.

BY

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By WILLIAM OLIVER MOORE, M.D.,

Professor of the Diseases of the Eye and Ear in the New-York Post-Graduate Medical School and Hospital.

"FORTY years didst thou sustain them in the wilderness, so that they lacked nothing; their clothes waxed not old, and their feet swelled not"—we thus read in an old Hebrew book; and in it we have the key to good health and sanitary law For if we, of the present day and generation, would live in the wilderness, be properly clad, eat and drink only such things as are really needed for the continuance of life, we too might say: "And their feet have not swelled these forty years." In the present day, Gout and Rheumatism are observed to prevail wherever there is an upper class, having abundant means of self-indulgence, and living without regard to the primeval law of humanity: "In the sweat of thy face shalt thou eat bread."

(*) Read before the Clinical Society of the N. Y. Post-Graduate Medical School and Hospital; March 11th, 1893.

A well marked hereditary *tendency* to these diseases may be observed, which even a very active and temperate life can scarcely overcome; while, on the other hand, the grossest forms of excess may be practiced for a whole life-time without incurring the gouty or rheumatic penalty.

It is difficult to explain these variations; but they leave unaffected the general principle, that gout is a disease especially of those who have little physical exertion and give great scope to their bodily appetites.

With few special exceptions, those that labor in the open air, are seldom attacked by this disease. Those that labor much with the mind, and are not restrained by abstemiousness, are remarkably subject to gout. Gout and rheumatism are thus the counterpoise in the scales of fortune to many worldly advantages. HIPPOCRATES, in his "Aphorisms", speaks of gout as occurring most frequently in spring and autumn, and mentions the fact that women are less liable to it than men; again, SENECA, writing later, mentions the prevalence of gout and rheumatism among the Roman ladies of his day as one of the results of their high living and debauchery.

CULLEN recognized gout as capable of manifesting itself in various ways,—as regular gout, irregular gout etc., etc.; and Dr. GARROD adopts a division somewhat similar to, though simpler than, that of CULLEN,—namely: regular gout that affects the joints, and is either acute or chronic; and irregular gout, affecting non-articular tissues. It is this latter form that we have mostly to deal-with in affections of the eye; or in some cases even we see these eye-affections in the so-called "suppressed gout".

In speaking of these different eye-diseases which I attribute to rheumatism and gout, I distinctly wish it understood at the outset that I have carefully eliminated any question of *syphilis* as a cause; knowing full well that many will raise this as a potent factor. How far rheumatism and gout may be related to syphilis, I do not know; but I believe that, through the process of time, the syphilitic and other poisons introduced into the system, long years before, may have become so attenuated and diluted as to produce, in offspring, tissue-changes causing what we to-day term rheumatic and gouty conditions; so that gout and rheumatism

may be cousins, so to speak, *far removed*, —the special treatment of which is essentially different from that of the parent disease.

I shall speak of the ocular diseases, produced by rheumatism and gout, in an indiscriminate way; believing, as I do, that they are practically akin, only with different features; as members of one family may differ in external form one from another, yet have the same common parentage. I believe that no disease as such is inherited, but that dispositions, tastes, and inclinations are; and that offspring inheriting a weak and delicate constitution, may have engrafted upon it any of the "germ diseases"; or may, in the struggle for assimilation and appropriation of the food-elements, have faulty conditions developed, producing one or another form of systemic disturbance, such as gout and rheumatism; but I do not believe that they, as such, are transmissible.

Rheumatism and gout are the result of sub-oxidation of the proteid substances, either from the over-indulgence in animal or vegetable substances alone, or combined. This being the fact, it is more easy to explain why some, following out a certain

line of life, have these affections; and others, doing exactly the same, have perfect immunity:—in one the oxidation goes on perfectly; and in the other instance the organs that have charge of these processes are at fault, and rheumatism results in some parts of the organization. "Thus, by the *sub-oxidation* theory, all the pathological changes and symptoms commonly known as pertaining to the various forms of rheumatism are explained." (Wm. H. Porter.)

That these two diseases should attack the eyeball and its appendages, at first glance may seem strange; yet, when we stop to consider, it is very clear and reasonable; for we all know that gout and rheumatism primarily attack the joints, and prefer the fibrous tissue-elements of the body.

Is not the eyeball, and the orbit in which it is placed, practically a *joint?*—the orbit, a bony cavity of considerable size lined by periosteum, filled by an eyeball whose outer covering is in every particular similar to fibrous tissue,—namely the sclera and the cornea; and, attached to these coats, the muscles and their tendinous connections,—making in every particular the requirements of a well-regulated joint.

It is not strange, then, that this organ should be the object of gouty and rheumatic affections, when viewed in this light; although we frequently see cases where this fact has been very long overlooked, and damage to vision in consequence. I shall first speak of the diseases of the orbit and superficial tissues of the eye, and then finally of the intra-ocular tissues that we find involved. The writers of fifty years ago paid much more attention to rheumatism and gout as a cause of disease than we;—the pendulum swings, and to-day it seems to be toward the germ end of the curve, with a particular tendency toward syphilis. My endeavor has been, however, only to state the results of practical clinical observation, which has extended over a considerable period of time, and although I expect to be accused of including the whole domain of ocular disease within my grasp, I can truly say I have left a little for future consideration.

PERIOSTITIS OF THE ORBIT.

This condition is, as a form of rheumatic or gouty affection, may be either acute or chronic; and, is next to that of syphilitic

origin, the most common. The course of the acute affection is various ; and the after-results depend upon the promptness with which the products of inflammation are evacuated from the orbit ;—if early, then the tissues rapidly resume their normal condition ; or, if delayed, the pus burrows and general inflammation of the orbit ensues, causing caries and necrosis of the orbital bones, with fistulæ, and subsequent retraction of the upper eye-lid.

I have seen but one such case in my private practice, and that in a male aged thirty, who had no trace of syphilis, but was the subject of rheumatism of an acute variety. When seen first by me in 1888, the right eye was prominent, the lid very much swollen and inflamed, and deep pressure showed pus in the orbital tissue. An incision was made into the orbit through the upper lid, when a large amount of pus escaped ; the periosteum was denuded on the inner and upper part of the orbit, to the extent of about one-half inch [over 1 cm.]. The treatment consisted in washing-out the orbital space with carbolic acid and giving sodium salicylate internally. After three months of careful treatment, the fistula

closed; and the eye, when seen eighteen months after the attack, occupied its natural position.

The symptoms of these acute cases do not materially differ from other forms of periostitis,—pain being the prominent symptom. In some cases the pressure of the fluids contained in the orbit cause inflammation of the sheath, and even substance, of the optic nerve; causing thereby sudden blindness, without any appreciable ophthalmoscopic appearance. Dr. Henry D. Noyes has reported a case of rheumatic periostitis in a woman,—the patient being also a friend,—and where the presence of rheumatism was well established.

The course of the disease, when chronic, is very slow, lasting months; and, therefore, the ocular troubles do not always develop, —owing to the pressure increasing but gradually, either from the exuded material or the exostoses; occasionally, however, we see exophthalmos and turgidity of the conjunctival blood-vessels; the fistulæ that form, lead to denuded bone; and the skin of the upper lid is retracted, causing ectropion. A point in differential diagnosis between *orbital cellulitis* and periostitis is that,

in the latter, pressure on the margin of the orbit causes great tenderness and pain, and in cellulitis this sign is absent; this point was first mentioned by Mr. JOHN HAMILTON, of Dublin. When the *deep* parts only of the orbit are affected by periostitis, then this sign just mentioned fails. In orbital periostitis the eyeballs are not so exophthalmic as in cellulitis.

TENONITIS.

SANTOS FERNANDEZ reports two cases of rheumatic tenonitis; and DRANSART asserts that amblyopia, and atrophy of the optic nerve, may be of rheumatic origin; these conditions being produced by an exudation within Tenon's capsule, followed by symptoms of compression, slight exophthalmos, amblyopia, and dilatation of the retinal veins.

He distinguishes *two forms* of tenonitis,—one chiefly characterized by *chemosis*, and the other without it. It is the latter form that is followed by amblyopia and optic-nerve atrophy,—the chemosis serving as an outlet for the excess of morbid secretion within the capsule. The symptoms are those of the ordinary cellulitis of the orbit.

I have seen two cases of this sort, both

males, in which no cause other than rheumatism could be given; both of these patients had previously had acute rheumatism. In one, aged 32, the swelling of the lids and conjunctiva was marked; and, after the evacuation of the pus, the symptoms gradually subsided without any intra-ocular changes. In the other case, aged 25, only one eye was affected; swelling of the eyelids took place in considerable amount; but there was no chemotic conjunctiva, although the whole eyeball was deeply injected and the tissues of the orbit were firm and brawny. The condition continued for two weeks, then gradually subsided. An ophthalmoscopic examination, made during the first week, revealed a well-marked optic neuritis, with considerable swelling; this finally gave way at the end of a month; and six months later the optic nerve had the appearance of atrophy, with V=20/L; the fellow-eye, V=20/XV. The patient, seen two years after the acute inflammation, showed still the atrophic nerve-condition, with the same vision as reported above.

AFFECTIONS OF THE INTRINSIC AND EXTRINSIC MUSCLES OF THE EYE.

Paralysis of accommodation has been

noticed after severe attacks of acute rheumatism and gout.

That rheumatism effects the muscles of the eyeball, there can be no question; as I have frequently seen patients who complained of lameness on moving the eyeballs, which could not be explained in any other way. During the past two years, especially since the prevalence of *la grippe*, and in patients convalescing from that disease, I have seen a large number of patients whose sole difficulty seemed to be this marked lameness of the extrinsic muscles of the eye, giving rise to *muscular asthenopia;* the administration of sodium salicylate usually corrected the difficulty.

I have also seen the ocular muscles become entirely disabled from inflammation in the nerves supplying them,—the neuritis either arising in the nerve-substance from systemic causes, or from pressure on the nerve-trunk by exudations in the orbital space.

In such cases, we must use both local and constitutional measures, —*internally*, sodium and lithium salicylates; and *locally*, massage to the affected muscles, with the application of castor- or olive-oil inunctions

to the temple and eyelids. Turkish and Russian baths are most excellent in these cases.

CONJUNCTIVITIS.

I have no doubt as to rheumatic and gouty conjunctivitis; as three male patients of this class come for treatment several times a year,—the conjunctivitis usually antedating the gouty attack. One of them has learned to take heed of this ocular warning; and, the moment his eye becomes inflamed, he puts himself upon his favorite remedy, Blair's Pill. These cases of conjunctivitis have very little mucous secretion; yet there is some, and the attacks respond quickly to proper internal medication, and to the local applications, to the eyelids, of alum in crystal.

Le Roy has reported several similar cases, and has once seen *iritis* associated with it.

Sub-conjunctival extravasation of blood has been noticed, and is valuable as indicative of the general systemic condition.

Encysted calcareous deposits (urate of sodium) along the upper-lid edges are of very frequent occurrence, and are also found filling the Meibomian follicles. So long as they remain in the follicle beneath the conjunctiva, no difficulty is experienced; but

so soon as they ulcerate, or protrude through this membrane, there ensues inflammation of the conjunctiva and cornea, with the usual attendant symptoms of photophobia, lachrymation, etc. *True pannus* my also be produced.

These little calculi may be picked out with a delicate pointed instrument, such as a dicission needle or tenotome. All close observers must have noticed them, and I have invariably found them in the rheumatic or gouty.

LID-ECZEMA.

A scaly eruption of the eyelids is also a sequel of the gouty condition; and this eczema may give much trouble from the attendant itching.

KERATITIS.

Rheumatic keratitis, as an affection entirely by itself and limited to its own tissue, is certainly very rare, although not so rare as some observers would have us believe. It usually runs its course without showing any trace of suppuration, and in the milder forms is manifested by a wide-spread obscuration of the cornea, which looks like a piece of glass when breathed on. The ciliary injection is very well marked, and the ocu-

lar conjunctiva somewhat œdematous, with photophobia and lachrymation, and pain out of proportion to the other symptoms. The cloudiness of the cornea often changes very rapidly; this is due to changes in the lymphatic circulation of the cornea. The more common form is where the cornea and iris are both involved; and the iritis in these cases is usually of the serous variety. I have recently had such a case under observation, (male, aged 36); which, until constitutional treatment was thought-of, remained most obstinate; but the administion of sodium salicylate changed the picture completely. Mr. JONATHAN HUTCHINSON has reported several such cases of keratitis due to rheumatism. In one there was iritis associated with it; and the change from the moist cold of England to the tropics cured the patient.

I have seen several cases where the corneal epithelium would desquamate, and superficial ulcers form on the corneal surface, first in one and then in the other eye, —causing the patient a vast deal of discomfort and pain; and, in fact, keeping him from using his eyes. Here there was no possible question as to cause; the patient

being disabled by the many attacks of rheumatism from which he had suffered. The use, in this case, of cocaine in castor-oil gave great relief.

SCLERITIS.

Scleritis usually occurs in middle life, though it may occur in youth. Its occurrence without external cause, and the relapses in various portions of one or both eyes, in those carrying out a correct dietetic regime, makes it probable that there is a casual connection with some general disturbance of health. De Wecker, Arlt, Panas, Zychon, and Emmert, of modern writers, and Mackenzie, Laurence, and others, of fifty years ago, refer it to gout and rheumatism.

It scarcely ever occurs in its simple or isolated form as a consequence of syphilis.

Scleritis attacks only that part of the sclera which is anterior to the equator of the eyeball; and the inflammation may be either superficial or deep. *The superficial form*, epi-scleritis, appears as a circumscribed patch close to the corneal margin; it is often found without pain, and with very little if any swelling of the parts; it is apt to recur in different parts of the eye-

ball, leaving slight discolorations of a dusky hue; but no harm usually comes to the eye. These attacks vary in length from a few days to several weeks. *In the deep scleritis*, the inflammation being so violent, thinning of the sclera frequently occurs; and subsequent bulging or staphyloma takes place, presenting a blue-grey appearance, due to the choroidal tissue showing through the thinned sclera. Either with this condition, or not, opacity of the cornea is very apt to occur in the course of the disease; which continues and remains as permanent opacity, causing more or less diminution of vision. The blood vessels of the sclera become increased in size, and advance toward the corneal circumference, and occasionally over its border; they are bright-red, and about equally surround the corneal edge. No secretion except an increased flow of tears is noticed; and only very rarely chemosis is found. Dimness of vision is frequently seen, owing to the cloudiness of the aqueous humor. Iritis may be met-with occasionally with scleritis; and cases of *acute glaucoma* have developed from this affection. The pain which attends this form of ocular trouble is, at the

beginning, of a stinging kind, from the eye ball to the orbit, and is usually increased by heat; it often extends to the head and temple, and even to the teeth; the eye-brow is however, its chief seat; the pain is worse at night. There is sometimes general disturbance of the system. In some the attack is very severe, in others only moderate in severity, and falling into a sub-acute form. It frequently happens in those who have never had rheumatism, but who have a rheumatic tendency; we rarely see it as a result of metastasis.

Usually it is said by the patient to be due to exposure to a direct draft, when the head or face had been very warm. It is more prevalent in winter and spring, when the north-east winds are blowing. It is apt to recur, and is eminently of rheumatic and gouty origin.

Treatment of both epi-scleritis and scleritis is had:—*constitutionally*,—by the internal administration of lithium or sodium salicylate, or both; hypodermatic injections of pilocarpine muriate, as advised by De Wecker; and antipyrine, antifebrin, or phenacetin, for the relief of the ocular or cephalal-

gic pain. Iodide of potassium and colchicum may also be found of service.

Locally,—applications to the eye, of warm fomentations; and the instillation of atropine sulphate, either alone or combined with cocaine hydrochlorate, in solution in either water or oil, every three hours, will be found to be of great service in allaying pain and dilating the pupil. Occasionally cases are met-with, where bandaging the eyes gives much comfort. Scarifying the inflamed part is commended by SCHÖLER; and the use of the galvano-cautery over the inflamed region is practiced by some; I do not like this procedure for this disease. *Regulating the quantity and quality of the ingested food* is of prime importance. I have frequently seen patients with this affection treated for a long time, with only moderate relief, by local measures alone; where, by adding the proper constitutional medication, the disease was speedily overcome. In my experience the salicylates have been most successful.

IRITIS.

Rheumatic iritis is next in frequency to that produced by syphilis, and differs from the other forms only in its obstinateness to

local treatment. It has *no pathognomonic signs* by means of which it can be diagnosticated upon the ocular symptoms present. The attack is usually sudden, and not infrequently both eyes are simultaneously affected. The symptoms most prominent are, contraction of the pupil and impaired mobility, and a general murky, dull look to its surface; due to exudations into the aqueous chamber and also to the turgid condition of the blood-vessels of the iris. The redness and vascularity incident to these changes are not so pronounced as in some other forms of iritic inflammation; the vascularity is greatest in the ciliary region and corneal circumference,—fading gradually toward the conjunctiva. The pain is usually very severe, and extends throughout all the branches of the fifth nerve,—more especially the supra- and infra-orbital branches, and, as in most iritic inflammations, is worse at night. As a rule, no exudation into the pupil or anterior chamber occurs.

Occasionally, *another form* is noticed in adults; where, in addition to the symptoms above narrated, a fibrinous exudation into the anterior chamber takes place, so that it

is turbid with exudates. This variety is very prone to recur, and is very susceptible to climatic influence. The pain in rheumatic iritis is often very severe, as has been stated ; yet, often, what is called "quiet iritis" is due to the same faulty condition of the system.

It has been observed by some German writers that the color of the ciliary zone in this variety of iritis is more dull, and in some cases livid. I am of the opinion, however, —already expressed,—that—save the peculiar obstinateness of the iritis to the ordinary *local* methods used in other forms, and its quick response to *anti rheumatic* remedies when given—there are no signs in the eye alone, to indicate its cause. The temperament of the individual and the previous occurrence or present existence of rheumatism or gout are aids in the diagnosis.

The *prognosis* is good, unless the case does not come under observation early, when *synechia posterior*, forming and remaining fixed, may give rise to subsequent attacks and favor cyclitis. After an attack of gouty inflammation in the foot, we see the parts continue long tumid and sensitive, and the most trivial thing will produce a re-

lapse. The same is observed in regard to the eye ; only here we have the advantage of *seeing* the vascular changes present, and can more rapidly combat any recurrence of the disease. Puech thinks he has seen cases of iritis at the menstrual inauguration, that were due to rheumatic diathesis.

Treatment of Gouty and Rheumatic Iritis. —*Locally ;*—as in iritis of whatever form, by mydriatics—as, atropine sulphate and cocaine hydrochlorate combined, in solution in either water or castor-oil.—the latter vehicle allowing the mydriatics to remain in contact with the ocular tissues longer and to give, therefore, a better effect on the pupil. Application of hot water to the closed eyelids, several times a day, is of immense service in relieving pain. Where this is intense and not relieved by these methods, a hypodermatic injection of morphine sulphate, or the use of pilocarpine muriate in the same manner, is beneficial. One of the peculiarities of these forms of iritis is—as stated before—their obstinateness to local treatment; and, therefore, *only when remedies are directed to the constitutional disorder*, will the ocular trouble disappear. A valuable way to use atropine sulphate in all forms of

iritis, especially where the iris does not speedily dilate, is the "rapid method," or, as it is sometimes termed, "*coup sur coup*"; that is, instilling the mydriatic *every ten minutes* for a given hour, twice daily, morning and evening; and, in the interval, every two hours. Leeches, either natural or artificial, are occasionally needed—to be applied to the temple.

General Treatment offers great relief. Turkish and Russian baths give great comfort; and, with the internal administration of sodium salicylate, either alone or combined with quinine, hasten the cure. Colchicine, employed in the form of granules of two milligrammes ($\frac{1}{32}$ gr.),—increased until the patient experiences intestinal trouble—has been found excellent by DARIER. In feeble patients, of course, care must be taken to limit medication. In some instances the administration of the oil of gaultheria has done better than its fellow, salicylic acid.

CHOROIDITIS AND IRIDO-CHOROIDITIS.

When gout attacks the iris and ciliary body, acute glaucoma is sometimes set up. BOUCHERON says the symptoms of gouty or rheumatic cyclitis vary according to the part of the ciliary region involved,—leading

to supra-orbital neuralgia or cephalalgic radiation. To-day we must all admit that there are many cases of glaucoma directly produced by the gouty and rheumatic condition of the system; and the circulation, in the blood, of the products of sub-oxidation brings about disturbances in the intra-ocular circulation, causing pressure and the glaucomatous condition. Noyes has seen acute glaucoma occur during convalescence from acute rheumatism, in a young woman of twenty years,—one eye being affected. I have repeatedly seen cases which, to my mind, have had rheumatism or gout as the exciting cause. Glaucoma, as known to us at the present day, was by the old writers ascribed most altogether to an inflammation which started, as they thought, in the sclera; and, progressively, deeper and deeper structures of the eye were attacked; until finally a general inflammation of the interior tunics took place,—resulting in cataract and hopeless blindness.

Treatment of Choroiditis and Acute Glaucoma.—*In simple choroiditis* with detachment of the retina, as a result of rheumatism or gout, the hypodermatic use of pilocarpine muriate offers the best result; this

treatment, combined with rest in the recumbent position, hastens the cure. Sodium salicylate may be also given in full doses.

In acute glaucoma, no especially different plan is to be pursued. Eserine sulphate (gr. ii. : aq. ℥ i. [1:250]), instilled in the eye every two hours, will in the majority of cases cut short the attack if the patient is seen within the first few days. Should, however, the vision continue to fail, iridectomy should at once be advised. Those having glaucoma that can be traced to either of the conditions of which we are treating, should be warned of the danger to the unaffected eye, and be put on proper hygienic treatment, in order that they may avoid a similar attack in the remaining eye.

The affection in the Horse, formerly called "moon-blindness," "periodic ophthalmia," etc., is really *an irido-choroiditis*, produced by gout or rheumatism due to the sub-oxidation of the ingested food ; for it occurs usually only in young animals, who are suddenly taken from the pasture of the field and placed in the confinement of the stable, while at the same time a radical change is made in the food, from grass to grain,—producing that faulty condition of

the system—sub-oxidation—with ensuing ocular trouble, in the primary form of irido-choroiditis, leading to cataract and subsequent blindness.

OPTIC NEURITIS.

It is the well-formed opinion of close clinical observers, that there is no doubt whatever but that the rheumatic and gouty diathesis is the cause, occasionally, of optic neuritis. I have seen two such cases during the past ten years.

The one was a male, aged 29 ; the neuritis was binocular, and associated with swelling of 3. D in the R. E. and 4. D in the L. E.—V = 20/XXX in each eye when first seen. The patient had acute rheumatism eight months before in the knee-joints, and recovered after a severe illness of six months. Another attack of only a week's duration, in one knee, antedated the ocular symptoms by two weeks. No syphilis, or other cause, could be discovered ; the blood and urine were carefully examined, and negative results found except as to rheumatism. This case gradually improved as to the neuritis ; while vision failed in each eye, to V = 20/C, with the appearance of optic-nerve atrophy.

The second case, a woman aged 32, had binocular optic neuritis following a sharp attack of acute rheumatism in each shoulder; her hands also showed the well-known deformed knuckles. The nerve-head was swollen 3. D. After six weeks the neuritis subsided ; and, finally, eight months later, the nerves looked pale and atrophic. with V = 20/LXX each eye.

The local affection *receives no peculiar character* from the constitutional disposition ; nor does it require any peculiar local treatment.

Hutchinson reports a case of double optic neuritis in a patient where there was no discernible cause except inherited tendency to gout ; and also one of monocular neuro-retinitis, with filmy vitreous opacities, in a lad aged 16 years. Fulton has also reported a similar monocular case of neuritis due to rheumatism.

Treatment should be directed especially to the general cause, and the anti-rheumatic and gout remedies pushed vigorously, with Turkish and Russian baths. Locally, leeches to the temple.

Many have expressed great doubt as to either rheumatism or gout producing double or monocular neuro-retinitis ; but we can

not understand why they object ; for certainly a deposit either gouty or rheumatic in character can exist inside the skull as well as on its outer surface ;—if so, why not these conditions, produced by such deposits? Such deposits in the skull, pressing on the origin of the optic nerves, or on their continuity, would produce either double or one-sided neuritis,—the same as any other exudation or tumor.

RETINITIS HÆMORRHAGICA.

We have on several occasions seen retinitis with hæmorrhages, due to gout, where the general condition had *not* produced any cardiac or renal disease ; both of these conditions had been carefully looked for. The only possible factor in the production of the retinal hæmorrhage seemed to be atheromatous retinal vessels.

I have two such cases now under treatment.—One is a woman aged 49, who has had, and still suffers from, gout in the foot ; failure of vision took place quite suddenly in the R. E.; and when first seen by me, Oct. '92, the vision was reduced to 20/L ; the ophthalmoscope showed a small hæmorrhage to the outer side of the nerve and below the macula lutea. The vision is now

(March 11th, '93,) 20/XXX, and the clot is almost absorbed; careful constitutional treatment has been insisted-upon by the family physician, and no local treatment was adopted.

The other case, a male aged 48, is also subject to gout in the foot. His history is almost a duplicate of the first, except that the L. E. was the one affected; V = 20/LXX, when first seen; it gradually improved, till now it is 20/XXX; the hæmorrhage is mostly gone. In this case it had encroached nearly on the macula. It is interesting to note that in each of these cases, the ocular symptoms came on during the interval of attacks, when the patients were in "good health (?)." No renal or cardiac disease was apparent.

Trusting that I have not wearied my readers with this tedious narration of facts known to so many of them,—I conclude by expressing the hope that all of us may avoid living in localities (as Shakespeare says) "abounding in sharp moisture causing Rheum."

New York City; 85 Madison Ave.

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