

Cohen (S. S.) ✓

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IN GOUTY SUBJECTS.

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BY SOLOMON SOLIS-COHEN, M.D.,
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THE term "gouty subject," as used in this paper, has perhaps a somewhat wider range of meaning than can strictly be ascribed to it, if only those are to be termed gouty who have suffered with articular inflammation, or who exhibit characteristic deposits. In this country, at least, a much larger number of persons suffer with other than articular manifestations of the uric-acid diathesis, their symptoms being varied, and often obscure, until the cause is discovered upon examination of the urine, which shows more or less constantly an excess of urates and uric acid, and often contains calcium oxalate and excess of phosphates. In both classes of patients the upper air-passages are frequently affected, and while the gouty diathesis cannot be affirmed to be the sole cause of the local manifestations, it doubtless acts as both a predisposing and a modifying influence.

Harrison Allen² has sharply discriminated be-

¹ Read before the Laryngological Section of the Pan-American Medical Congress, September, 1893.

² *THE MEDICAL NEWS*, Philadelphia, June 16, 1888.



tween gouty sore-throat and the lithemic throat, and has reported a number of instances of the former condition. He has also given such references to literature as are of value in this connection. I am not inclined, however, possibly because of a more limited experience, to make equally sharp distinction with Allen. Sir Wm. Roberts¹ has well shown the important difference between uric acid gravel and gout, the offending materials in the latter case being deposited in combination as urates in the true interior of the body, while in the former they are deposited as uric acid, on a doubling of the external integuments; yet even he admits that the underlying conditions are virtually the same. Reasoning upon clinical analogy and without direct histologic evidence, it seems to me that cases of the class treated of in this communication occupy what may be termed a middle position; the phenomena depending in large part upon irritation due to offending materials in the circulation, but in less part upon actual deposition in the fibrous tissues.

A large number of cases would have to be recorded in detail by different observers, and a careful analysis made, before characteristic signs of throat-gout could be laid down. Reference should be made to the valuable studies of Hinkle,² with whom, however, I cannot agree in assuming that the cases reported by Ingals as instances of rheumatic sore-throat were of a gouty nature. This paper does not aim to present

¹ Sir Wm. Roberts: *On the Chemistry and Therapeutics of Uric Acid Gravel and Gout*, p. 56. London, 1892.

² *Trans. Am. Laryngological Association for 1889*, p. 124. N. Y., 1890.

more than the general results of personal observation, extending over a number of years, but necessarily dealing with a limited number of cases.

The condition, depending as it does upon a permanent error of metabolism, is probably in most, if not in all, instances a chronic one, with a tendency to paroxysmal exacerbation, under the influence of extrinsic or intrinsic exciting causes. Among the most frequent of such exciting causes are exposure to cold or to wet, and indiscretion in diet.

The frequent dependence of chronic sore-throat on diathesis has been recognized by systematic writers. Thus, concerning the causation of "chronic catarrhal sore-throat," J. Solis-Cohen says:¹ "The disease is not usually a sequel of acute sore-throat, but becomes gradually developed without attracting much attention. *It may exist with any diathesis.* Sometimes it is a mere manifestation of disorder in the intestinal tract." And again, concerning treatment, he remarks: "As this affection may coexist with *a variety of diatheses*, the systemic treatment will vary in accordance with the constitutional requirements. *Alkaline laxatives* are usually indicated."

Attention being as a rule first directed to gouty sore-throat during a paroxysm of exacerbation, its diathetic origin may be overlooked; and the case may be mistaken for one of the ordinary forms of acute inflammation. Inflammation, however, is not a necessary feature of the disease, and in my own experience the most prominent symp-

¹ Diseases of the Throat and Nasal Passages. Second edition, p. 178. New York, 1879. Italics are mine.

toms have been sensory; pains and perverted sensations of various kinds being referred to circumscribed regions, often described as "spots," in which no structural alteration adequate to explain the symptoms can be discovered. In one of the most marked cases that has come under my observation, that of a married lady, some forty-five years of age, who is of a gouty family, and has gouty deposits in the finger-joints, the spot most frequently pointed out as the seat of the discomfort is in the left pharyngeal angle just behind the free border of the soft palate. This, however, is not the only location of pain, which is variously described as stinging, burning, pressing, or like that caused by the presence of a foreign body. Sometimes the discomfort is referred to the neighborhood of the epiglottis; sometimes to the side or the base of the tongue; sometimes to several points at once. These spots are often painfully sensitive to the touch, and can thus be accurately localized. The patient has an idiosyncrasy to cocain, and it could not therefore be determined whether or not the application of this drug would abolish the localization of pain.

Similar localization is found in many, but not in all cases, and usually fails when cocain has been applied, though this is not invariable. I have been of the opinion that when sensitiveness persisted after application of cocain the trouble was deep-seated in the fibrous structures.

In some cases pain is referred to a part apparently unrelated with the one touched, but the association is constant, and the impression left upon the mind of the observer is that the error is in the reference,

few persons being able to describe accurately the exact seat of a sensation in the throat.

Sometimes, and more especially during an acute paroxysm, visible alterations of structure are manifested at the painful spots. The most usual appearances are the presence of dilated bloodvessels—veins or capillaries, several of which may cross one another at such a spot. Sometimes a single large bloodvessel is found; sometimes there is a dusky coloration of the mucous membrane; sometimes an enlarged and reddened follicle. Often, however, there is no apparent difference from the surrounding membrane, which sometimes presents general congestion, and sometimes nothing out of the ordinary. When congestion exists it may be patchy or uniform. Usually the coloration resembles that of corned beef; sometimes it is dusky red, or even purplish.

In the larynx, the epiglottis and the arytenoid eminences seem the favorite seats of morbid sensation, the former usually exhibiting a network of dilated vessels resembling a veil, the latter a slight tumefaction and reddening. In two cases, in young men, I have seen what appeared to be inflammation limited to the neighborhood of one crico-arytenoid joint. There was pain on respiration and phonation, vaguely referred to this region. I have frequently seen similar appearances at the inception of an attack of acute rheumatic tonsillitis. In some cases there is during the more acute stages a characteristic diffuse laryngitis, much resembling, and perhaps identical with, the form described by J. Solis-Cohen¹ as occurring in young adults

¹ Op. cit., p. 474.

addicted to over-feeding and the abuse of condiments.

In these subjects the tongue is red or reddish-brown, thick, puffy, with prominent papillæ, with a somewhat thick coating at the base, extending in streaks toward the tip. The mucous membrane of the pharynx, palate, and palatine folds is relaxed, puffy, and usually congested. The mucous membrane of the larynx, and especially of the arytenoid eminences, and of the ary-epiglottic folds, is similarly puffy, and always congested; the vocal bands are pink or red, the color being deepest at their posterior insertions. A pellet of mucus is usually adherent to the meso-arytenoid fold, and as a rule mucus is found in other portions of the larynx as well. The voice is hoarse; the hoarseness is greatest in the morning and after meals. There is a constant desire to clear the throat of mucus; the expectoration is greatest in the morning. The patients often complain of a feeling of fatigue after slight use of the voice. This sensation of tiredness may be referred to the larynx or to the pharynx. The conditions described may pass off in a few days; they may persist for ten days or a week; or they may merge with the chronic symptoms.

In the pharynx, the tonsillar and peri-tonsillar structures and the angles of junction of the posterior and lateral walls have seemed to be most frequently affected. There may be enlarged glands. The tongue and its glands are often involved. The mucous membrane of the tongue or of the cheeks sometimes presents whitish patches of cornified epithelium (*leukoplakia buccalis*). When the distress-

ing sensations are referred to the rhino-pharynx, Luschka's tonsil may be tumefied and reddened. In young patients the pharynx and larynx are often covered with grayish, tenacious mucus; in those past middle life the pharyngeal and palatal membrane is often dry and pale, exhibiting a network of enlarged and tortuous vessels, or mottled with livid patches.

Relaxation of the palate is common, and in some subjects paroxysms of nasal obstruction, with or without coryza, are met with. This was noticeably the case in a man aged fifty-four years, a neurasthenic, with gouty deposits in the drum-membrane, and in whom at other times nasal respiration was perfectly free; there being no structural deformity that would impede the passage of air. During these paroxysms of obstruction the turbinates would be puffy and pasty-looking; the posterior wall of the pharynx would be apparently bulged forward, and the soft palate would likewise appear puffy and pale. There would be an annoying sensation of a foreign body between the throat and the nose, and efforts at hawking, though ineffectual, would be continually repeated. Examination would not reveal sufficient accumulation of mucus in this region to account for the sensation. In this case the hard and soft palate were occupied almost constantly with a network of large, bluish vessels, which during the paroxysms referred to became still more tortuous and darker in color. Upon one occasion I proposed scarification, but the patient—perhaps wisely—would not consent. In some cases tubal catarrh exists, and sensations of distress are referred

to the ear. In a case similar to the one just cited, pain was referred to a point marked externally by pressing the finger just behind the angle of the jaw, whence it radiated into the ear. In a few cases spasmodic choking in swallowing and spasmodic obstruction of respiration, laryngeal and bronchial, have been observed. In one case an attack almost resembling croup was followed by an outbreak of articular gout.

The diagnosis in these cases, while suggested by local appearances and symptoms such as have been described, depends upon recognition of the constitutional condition, and cannot be affirmed in the absence of the ordinary evidences of such constitutional disorder. Urinalysis gives the most important evidence in cases in which there has been no articular inflammation or deposit.

Local treatment is palliative only, and it should be sedative and protective; irritating and stimulating applications are counter-indicated. Astringents may be cautiously employed during paroxysms of exacerbation. For this purpose I have found the glycerole of tannin applied by cotton wad, or a spray of zinc sulpho-carbolate in rose-water (five grains to the ounce), the most useful. Cocain is badly borne by some patients, inducing spasmodic phenomena. When well borne it is useful to relieve pain. Applications of fluid extract or concentrated infusion of coca will at times be feasible and useful in cases in which the alkaloid cannot be employed. I have likewise found aconitine oleate (2 per cent. in oleic acid, freshly made and flavored with oil of almond) a useful analgesic application. Menthol (from 2 to 5 per cent. in liquid petrolatum, as a

spray; from 5 to 10 per cent., topically by cotton wad) is occasionally of great service; in some cases, however, it cannot be tolerated. Bromoform (topically by cotton-wad) has given relief in one or two cases in which other applications were inadmissible. In chronic cases solution of iodine and carbolic acid in glycerin (of each one grain to the ounce, with one and one-half grains of potassium iodid to facilitate solution) applied to the spots of painful sensation, or brushed over the entire pharyngeal wall, is of service.

Before making any of these topical applications, whether in acute or chronic cases, the parts should be cleansed by an alkaline and aromatic spray. In quite acute pharyngitis a gargle of hot milk and borax, or of plain hot water, or hot alkaline solution, often gives great relief. Guaiac is likewise of benefit. In acute laryngitis alkaline sprays, followed by the inhalation of the vapor of hot water impregnated with benzoin and paregoric, are useful. For permanent relief, of greater or less degree, dependence must be placed on dietetic, hygienic, and medicinal measures appropriate to the uric acid diathesis. It is unnecessary to detail these here, but I would like to record my favorable experience in this connection with strontium bromid.

ILLUSTRATIVE CASES.

CASE I.—Mrs. L., aged fifty, for some years has had attacks of tingling and sensations as of the presence of dust (hardly intense enough to suggest the presence of a feather) at the left side of the throat. When this feeling is experienced she is forced to cough, and with the cough comes a sensa-

tion of strangling. The cough is short, at first sharp, afterward, with the strangling sensation, muffled. There is never any expectoration. The pharyngeal mucous membrane is irregularly reddened and thickened, and there are a number of prominent follicles, surrounded by reddish whorls of dilated vessels. The larynx is diffusely congested, the color being deepest over the arytenoid eminences. There is no mucus in the larynx or pharynx; Luschka's tonsil is reddened and prominent. There is no turbinate engorgement, and though the septum is slightly deflected to the left, nose-breathing is, and has always been, free.

The patient has frequent attacks of shooting pains in the fingers, joints, and about the knees. There are gouty changes in the last joints of the ring and middle fingers of the left hand. For some years she has been compelled to rise at night to urinate. The urine at times is burning.

The patient belongs to a family of good livers, some of whom have had articular gout. She is very stout and has a sallow and flushed complexion.

Urinalysis showed the presence of free uric acid as well as excess of urates and calcium oxalate. The specific gravity was high; no sugar or albumin was found.

A spray of liquid petrolatum, with 5 per cent. of menthol and 2 per cent. of cocain, was prescribed to be used three times a day, and whenever the unpleasant sensations were experienced. The diet was carefully regulated, outdoor exercise directed, and strontium bromid given in doses of thirty grains three times a day before meals. Under this treatment the patient rapidly improved, and up to date (ten months) there has been no return of the paroxysms.

CASE II.—Mr. M., aged fifty-two, of full habit, sallow and flushed complexion, complains of

ringing in the ears, of a pain darting from the ear to the throat, and from the throat to the ear, sometimes felt externally behind the angle of the jaw. There is a constant desire to clear the throat, but very little mucus is ejected. The nose feels stuffed up. At times there is a burning sensation referred to a definite spot in the pharynx. The palate is relaxed and covered with a network of bluish vessels. There are a number of enlarged follicles in the pharynx, which is irregularly streaked with red and bluish patches; between these the intervening membrane is quite white. A sensitive spot is found just beneath one of the enlarged follicles on the posterior wall. The patient recognizes this as the seat of the burning. There is considerable tumefaction of the posterior wall of the pharynx toward the lateral angles. The septum is slightly bent, though not sufficiently to obstruct respiration, and the lower and middle turbinates are red and swollen. The tongue is heavily coated, and the papillæ are prominent. Some accumulation of thick, tenacious mucus is seen in the vault of the pharynx. The mouths of the Eustachian tubes are widely open, and the whole structure appears much larger than normal. No mucus is detected in the Eustachian tube, and air enters it freely. The drum-membranes are opaque and show gouty deposits. The patient is a dyspeptic; his urine shows excess of urates, calcium oxalate, no albumin, no sugar.

A spray of menthol and cocain in liquid petrolatum was prescribed, but the strength had to be reduced to 2 per cent. of menthol. The rhinopharynx was wiped clean every morning with a cotton wad saturated with a 2 per cent. solution of cocain. Counter-irritation over the mastoid processes with tincture of iodine was from time to time employed, and iodine, carbolic acid, and glycerin solution applied twice a week by a cotton

wad to the nasal passages. Regulation of diet and antilithic treatment internally were kept up. The patient slowly improved and was dismissed from treatment in the course of three months. He had become largely rid of his distressing symptoms, though not altogether of the roaring in the ears. Once in a while he returns for local treatment, which seems to give him relief.

CASE III.—Mr. C. H., aged thirty, a travelling salesman, for a year or more has had frequent attacks of hoarseness, with a feeling of "rawness" in the throat. There is no pain in swallowing. The attacks last about a week. The intervals of freedom vary from a month to six weeks. The present attack has lasted longer than usual—some ten days. There is a slight hacking cough and a desire to clear the throat. There is no trouble in breathing, nasal or otherwise. The tongue is heavily coated, the pharynx congested in streaks, the larynx slightly congested, the epiglottis flaccid, the arytenoid eminences puffy. There is pain referred to the upper part of the chest, but no physical sign of pulmonary lesion. The heart is normal. The patient is a very stout man. He uses tobacco largely, and drinks beer moderately. He is a hearty eater and a gourmet. The urine is 1034 in specific gravity, of acid reaction, and contains urates, uric acid, and calcium oxalate in excess. Diet was regulated. A solution containing strontium bromid and strontium lactate, 15 grains each, was given in water, before meals. The patient was ordered to drink hot water one hour before meals. Zinc sulpho-carbolate spray was applied locally. Relief was reported in four days. There has been no return of discomfort as yet.

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