TUTTLE (J. P.)

SYPHILITIC ULCERATION OF THE RECTUM.

Read in the Section on Dermatology and Syphilography at the Forty-sixth Annual Meeting of the American Medical Association, at Baltimore, Md., May 7–10, 1895.

BY JAMES P. TUTTLE, M.D.

ADJUNCT PROFESSOR OF SURGERY AND LECTURER ON DISEASES OF THE RECTUM AND ANUS IN THE NEW YORK POLYCLINIC.

REPRINTED FROM
THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
FEBRUARY 1, 1896.

CHICAGO:
AMERICAN MEDICAL ASSOCIATION PRESS.
1896.

SYPHILITIC ULCERATION OF THE RECTUM.

BY JAMES P. TUTTLE, M.D.

While syphilis is acknowledged to be the most frequent cause of stricture of the rectum, and the profession at large are well posted as to this fact, I have been surprised in post-graduate teaching to find how little the modus operandi of its production is understood, and how little the prodromic and precursive conditions are appreciated.

I do not propose in the present paper to discuss stricture of the rectum in a general way, as this would lead me into too wide a field. In order, therefore, to make plain the bearing of my remarks it may be well to state at the outset that I have little faith in any syphilitic stricture of the rectum, that has not been preceded by ulceration of that organ. Gummata may produce narrowing of the canal as in the cases reported by Zapula (Arch. f. derm. und syph., Prague) and Molliere, but certainly it is very rare. The condition described by Fournier as ano-rectal syphiloma is said to have been seen by numerous observers, but there is no positive proof that ulceration had not preceded the infiltration, which is its chief characteristic. If the doctrines of Fournier on ano-cretal syphiloma, and Trelat on quartenary muscular infiltration and atrophy are correct, there is no anatomic or physiologic reason why we should not have similar strictures all along the alimentary canal just as frequently as at the rectum, which we all know we do not have. Ulceration is in my opinion, then, the almost invariable precursor if not the cause of syphilitic stricture of the rectum and is, therefore,

the important element to be understood; the essential condition to be diagnosticated.

When once the muscular wall has become infiltrated, its fibers atrophied and the interstitial tissue becomes sclerotic, there is no longer any hope of curing the stricture. Our only course then is palliation or resection. When the condition is recognized in its early ulcerative stage, before the above lesions have taken place, much may be done; indeed, the large majority of the patients may be cured. With this exalted view of its importance, I thought it not unfit to bring before this society a brief discussion of the clinical characteristics and course of syphilitic ulcerations of the rectum.

We may hastily run over, without discussing, the syphilitic manifestations about the anus, such as chancres, condylomata, erythema, secondary skin lesions, deep ulcerations, the result of friction and uncleanliness of the parts, fissure-like cracks, dry, brittle mucous membrane, mucous patches, etc. These manifestations occur early in the course of syphilis, indeed, they are generally associated with the secondary skin eruptions. Where they have a tendency to advance rapidly, and to great destruction of tissue, they are generally associated with some profound constitutional disturbance, such as nephritis, cirrhosis of the liver, or tubercular diathesis. These conditions should be borne in mind and inquired into with the utmost precautions. These secondary manifestations about the anus are important in themselves, but not pertinent to the point we have in mind. They are not likely to be overlooked and their nature is generally apparent. They are, consequently, treated early and cured before much damage has been done. These facts will explain in a large degree why we so rarely have syphilitic stricture of the anus. It is within the external sphincter that we find the dangerous ravages of specific ulceration. Van Buren said years ago, "When we consider how rarely the rectum is carefully explored, except

when painful symptoms render this measure necessary, and that secondary eruptions are usually painless, the absence of recorded cases of secondary ulceration is not difficult to understand; while the common occurrence of secondary syphilitic manifestations at the other end of the alimentary canal—in the mouth and throat—justifies the assumption that they also occur if not so frequently, in the rectum."

We are examining more rectums now-a-days and find that the predictions of this eminent teacher are more than justified. I shall not depart from the ordinary divisions of primary, secondary and tertiary lesions. The initial lesion is rarely seen in the rectum; first, because, as I believe, it is very infrequent, at least in this country, and second, because it produces so little disturbance if within the muco-cutaneous border, that it heals before the patient has occasion to consult a physician.

The primary sore in the rectum differs in no wise from that seen elsewhere, except at the verge of the anus between the mucous folds, when it may assume the form of fissure in ano. Care should therefore be exercised in examining all cases of fissure, to see that there is no localized induration at the point of ulceration; that its borders are not elevated, and that there are no other concurrent symptoms of syphilis in the individual. Especially is this important in women as the rectum in them is so exposed to contact with the male organ. The existence of pain in these fissure-like ulcers is no proof that they are not syphilitic, for if they involve the muco-cutaneous border they are almost as painful as any other form of fissure.

The primary lesion in the rectum has been so rarely recognized that many eminent syphilographers have denied its existence *in toto*. Those who have read the reports of Fournier, Martineau and Hartley certainly can not doubt its existence, and I do not care to enter into any further statistics to prove it. They

may occur as abrasions, erosions, round, crater-like ulcers, brown papules, or, as said before, as fissures between the mucous folds. All these manifestations are distinguished from similar non-specific lesions by a history of exposure, and by their localized cellular induration and infiltration. They do not involve the deeper layers of the gut; they heal in about three weeks or less, leaving a slight induration, rarely a cicatrix and no stricture. They will be rarely seen and more rarely diagnosed, but as we do not any longer treat syphilis at its initial stage unless some constitutional manifestation is apparent, little harm will be done by our failure to recognize these early signs.

Between the secondary and tertiary syphilitic ulcerations of the rectum, it is almost impossible to draw the line, unless we make it in weeks or months. Ulcers of secondary appearance may come on years after infection, just as a secondary skin eruption may recur after five or ten years in a properly treated case of syphilis. I prefer, therefore, to confine the term tertiary to ulcerating gummata and call all others secondary or secundo-tertiary. The time at which these ulcers occur varies from the third week after infection to the most remote period of life and their characteristics do not differ much whether occurring early or late, with the exception that the later in the disease the more likely are the ulcers to involve the deeper layers of the rectal wall. They are of variable shape, generally oval, but running up and down the rectum instead of around the gut as is the case in tubercular ulcers. They are crenated, crater-shaped, with sharply cut, infiltrated edges, never undermined, with grayish, sluggish-looking bases and bleed easily upon touch or friction. This condition of the edges, this color of the bases, this hemorrhagic tendency, positively diagnose these ulcers from tubercular ulcers which have a light yellowish look, are nearly always undermined, and ragged at the edges, discharge a thick muco-pus and rarely

bleed. The early secondary syphilitic ulcers do not as a rule involve the muscular layers of the rectal wall, but if superficial and if treated at this stage they disappear, leaving behind no cicatrix or contraction They soon become chronic, however, and invade the deeper tissues, one after the other, until they lay bare the sacrum, perforate the vaginal wall, or even the peritoneum itself. The ulcers have a tendency to extend up the bowel, instead of around it, although they do sometimes take the latter course, and as they advance from point to point the older portions heal and leave behind a smooth, white, depressed cicatrix, with slightly pigmented borders, the essential characteristic of which is to persistly contract. The bases of these ulcers are at first soft and edematous, but as they become more chronic and progress, cellular infiltration takes place in the submucous and muscular coats. The walls of the rectum assume a stiff and leathery feeling, and narrowing of the canal begins. The muscular fibers degenerate into fibrous tissue and there is left a contracting, connective or cicatricial tissue, the prominent feature of which is to hypertrophy and contract, and this is the condition which produces incurable stricture of the rectum. During this formative stage, we may have almost an occlusion of the gut, by a tissue differing much from the dense and cicatricial tissue which is the last stage of syphilitic stricture. In this condition there is a localized, cellular infiltration, which is not dense and hard, but soft and easily torn and composed of new, embryonic cells as will be seen from the following pathologic examination given by Mallassez (Dict. Encyc. page 728). "At the level of the contracted portion, at the point most elevated and least permeable, which offers to the introduction of the finger and the passage of matter a great resistance, were found, not as is ordinarily taught, a tissue analogous to cicatricial, but a tissue analogous to 'bourgeons charnus'—proud flesh. This tissue, formed of new elements, is very vascular and offered little

resistance to instruments when one sought to dilate it; it was only lower down in the widest part of the stricture that there were seen fascicles of hard, connective tissue surrounded by embryonic tissue and presenting the characteristics of cicatricial tissue. Between the fascicles of the muscular tissue were found also a large number of embryonic infiltrated elements, which reunited themselves at certain points. . . . . Finally, in the part which was below the stricture and which corresponds to the sphincterian regions, one observed almost always the cicatrices of the old ulcerations." From which it appears that the hard connective or cicatricial tissue stricture is the result of preceding ulcerative processes.

In women, recto-vaginal fistulæ are more likely to be found before the permanent cicatricial stricture is formed, and in my experience they are invariably below the contracted point. Especially is this the case if there be anterior rectocele, because the hardened masses of feces and the irritating discharges lodging in this pocket, the walls of which are already thin and inflamed, cause sloughing and breaking through into the genital tract. These fistulæ are not due to straining in order to pass the contents of the bowel through a strictured channel, but are purely the result of ulcerative processes. Curling (Diseases of the Rectum, page 112) and Paget (*Medical Times and Gazette*, 1865, page 279), seem to take the view that these ulcers are extensions from condylomatous developments about the anus. I have never seen a case which would confirm this view. Indeed I believe that condylomata are secondary to the ulcerations, and due to the irritating discharges from them, together with lack of cleanliness about the parts. The ulcers nearly always begin above the external sphincter, and there is a border of healthy, mucous membrane between them and the cutaneous border. They may be multiple, and extend throughout the entire extent of the large intestine but as a rule they decrease in size and frequency as we ascend the colon.

The first stages of stricture consist of ulceration, followed by a cellular deposit of soft embryonic tissue in the sub-mucous and muscular walls of the gut. This tissue becomes organized into connective tissue, hardens, contracts, and the surfaces heal over leaving a shining, bluish-white cicatricial appearance. In their early stages these strictures are soft and dilatable, but after the cicatrization has taken place the muscular tissues become infiltrated and atrophied or degenerated, and dilatation is no longer practicable. The early recognition of the ulceration, and the prevention of these later sequences should therefore be the aim of syphilographers and rectal surgeons. When the permanent stricture has once formed, the condition is more in the domain of the general surgeon than of the syphilographer. Prevention of stricture is our province—not its cure.

Prevention may be accomplished to some extent, in the following ways: 1, by systematic subjective and objective examination of every syphilitic patient with regard to the involvement of his or her rectum. The patient should be warned what to look for and at what period he should expect these manifestations. The use of the speculum, where the finger is not educated or where one feels any suspicious condition is of the utmost value. 2, by examining every case with rectal ulceration with reference to specific taint. Within the past year I have had sent to me as cases of cancer, three undoubted cases of syphilis of the rectum. Two of them, fortunately, had not reached the cicatricial stage of stricture and are now comparatively well. 3, we should be careful and accurate in our diagnosis between simple traumatic, tubercular and syphilitic ulcerations of the rectum. The history of the case may, or may not be of value. Many cases of syphilitic ulceration of the rectum are cases of "syphilis innocentium" and unwittingly deceive us in our subjective examinations.

The presence of pain is no proof that an ulcer is not syphilitic. It is the location of the ulcer of the rec-

tum which governs the pain rather than its nature. A syphilitic ulceration upon the muco-cutaneous border is just as painful as any form of ulcer, and a traumatic ulceration of the rectum above the external sphincter is just as free from pain as a syphilitic ulcer. The history of constipation, the use of enemata or other instrumental or digital manipulation of the rectum would suggest a traumatic nature for the ulceration. Yet these conditions existing and producing the ulcer, if there be constitutional syphilitic taint, the ulcer, originally simple, may take on a syphilitic nature and progress as other syphilitic ulcerations. Ulceration of the rectum from cirrhosis of the liver or kidneys is of a shallow character, associated with profound constitutional disturbances, it involves the mucous membrane, generally, of the entire rectal cavity, and occurs in the later stages of these diseases. It is not likely to be confounded with specific ulcerations. Chronic, advancing ulceration of the rectum, with cicatrizing border at its earlier points, is almost invariably syphilitic. Dry, brittle, mucous membrane about the anus, which cracks open by slight distention or upon the introduction of the finger, or pale pink, crenated, hypertrophied folds of the lower border of the mucous membrane are very likely to be associated with constitutional syphilis and frequently with ulceration higher up.

Nevertheless, these conditions are not positive proof, as the French and some English surgeons claim, of syphilis. The ulcers of the rectum which are likely to be confounded are the tubercular and syphilitic. The distinguishing points between these two varieties may be stated as follows:

Tubercular Ulcer.—Hereditary predisposition; general constitutional appearance; other organs may or may not be involved; base yellow; edges undermined, not indurated; ulcers if multiple, do

Syphilitic Ulcer.—Hereditary or acquired history; ulcers generally single; bases gray; edges indurated, sharp cut and not undermined; if multiple, ulcers unite by coalescence; pus very serous and

not generally coalesce but are united by submucous fistulæ; do not advance upon the surface, but burrow and form pus cavities and fistulæ; pus thick, stringy, scanty; rarely bleed; the deeper tissues seldom involved; no tendency to heal as they advance from point to point; no infiltration or atrophy of muscular wall; little if any tendency to contract or produce stricture.

The crucial test is the finding of tubercle bacillus; but failure to find it is only negative eidence and of little value.

always bloody; deeper tissues always involved when ulcer has existed for any length of time; progress rapidly, and generally up the gut, instead of circularly; tendency to heal as they advance and leave contracting cicatrices; muscular and submucous walls of gut infiltrated, stiff and leathery; constant tendency to contract.

The therapeutic test is of little value in the diagnosis of rectal ulceration as the most thorough anti-syphilitic treatment will generally fail to cure an ulceration of the rectum unless associated with proper local measures. There is one form of local tubercular ulceration which is very difficult to distinguish from ulcerating gummata. These both begin in globular, elastic, sub-mucous swellings. In their early stages they are not attached to either the mucous membrane or muscular wall of the gut. They may be single or multiple; of small or large proportions. The gummata are harder, less elastic and more likely to be multiple than the localized tubercular manifestations. They are also generally associated with other tertiary syphilitic lesions elsewhere in the body. Mollière says they do not suppurate but undergo a sort of fatty or cheesy degeneration and thus break down. The localized tubercular ulcer discharges pus, its edges are undermined and there is only a slight inflammatory zone about them. They are acute and yield readily to local treatment. The gummatous ulcer, on the contrary, discharges little pus, it is chronic, is surrounded by an inflammatory zone and does not yield to local treatment unless associated with constitutional therapeusis. It remains chronic, eventually involves the deeper walls of the gut, and

may be the commencing point of syphilitic stricture of the rectum, but the ulceration remains still the essential factor in the production of the fibrous, cicatricial condition.

TREATMENT.

The constitutional treatment of these conditions does not differ from that of syphilis elsewhere. Mercury, however, should not be given internally in these conditions as it is necessary to give the parts as much physiologic rest as possible. It should be used by hypodermic injections, inunctions or sublimations. The iodids should be administered in the form the least irritable to the stomach. I have recently given it in a solution of pepsin and this solution administered in milk. Another plan which has been suggested to me by Dr. Dillon Brown of New York, consists in dissolving the iodid in milk, and making of this a rennet whey, the fluid part of which retains the iodid and this is administered to the patient. It is a most unirritating solution and seems to agree with the most delicate stomachs.

For local treatment, except in the gummatous form of ulceration, I do not believe in irritating or cauterizing agents. Soothing and protective remedies have yielded the best results in my hands. Irrigation with boric acid or pyoktanin solutions, the application of slightly stimulating remedies, such as weak solutions of nitrate of silver, sulphate of copper, carbolic acid or bichlorid of mercury, and the insufflation of iodoform, or better still, aristol, upon the ulcerated points will generally cause them to heal and relieve the uncomfortable sensations of the patient. Recently I have obtained a very rapid healing in one case from the local application of a 10 per cent. solution of alumnol. Where this course of procedure does not result in cure we have one recourse, and that is absolute physiologic rest to the parts. This is given by inguinal colotomy; the formation of an artificial anus through which all the fecal matter shall pass and the

continuation of our local treatment. If the ulceration heals following this procedure, and does not leave a dense, fibrous condition of the rectal wall, the artificial anus may be closed and the passage of the feces restored to their normal channel. If there is a dense, cicatricial condition of the rectum left, then it would be wiser either to close the rectum permanently and let the patient bear the artificial anus through life, or to resect the strictured portion of the rectum and bring the healthy portion of the gut down and attach it to the anus or that portion of the rectum which is not involved, above this orifice. In the localized gummatous form of rectal ulcers, scraping out of the diseased tisse with a sharp spoon and then treating it as a simple ulcer, together with constitutional anti-syphilitic treatment will generally result in a cure. These methods applied with the early recognition of the disease will save us the mortification of seeing so many incurable strictures of the rectum and will avert a world of suffering to those who seek our aid, but beyond and above all methods of treatment is the importance of early recognition in these cases.

35 West 45th Street, New York.