JENKS (E. W.)

ON

# COCCYGODYNIA,

A Lecture Delivered in Chicago Medical College, March 20th, 1880,

BY

EDWARD W. JENKS, M. D., LL. D.,

Professor of Medical and Surgical Diseases of Women and Clinical Gynecology, in Chicago Medical College; Fellow of the Obstetrical Society of London; of the American Gynecological Society; etc., etc.

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*"La Médicine ne s'enrichit que par les faits."*

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REPRINTED FROM THE MEDICAL RECORD (OF N. Y.), VOL. XVII, NO. 16, APRIL 17, 1880.

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# A LECTURE ON COCCYGODYNIA.

DELIVERED IN CHICAGO MEDICAL COLLEGE,

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EDWARD W. JENKS, M.D., LL.D.,

PROFESSOR OF MEDICAL AND SURGICAL DISEASES OF WOMEN, AND OF CLINICAL GYNECOLOGY.

*Reported for the (N. Y.) Medical Record.*

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GENTLEMEN:

Your attention will be directed to-day to a disease of which little has been written, and yet an affection which may be met with by every practicing physician, although not very frequently by any. The disease is known as coccygodynia, coccyodynia, coccygalgia or coccyalgia, and is an affection which seems to be peculiar to women. I am prompted to discuss the subject at some length now, as one of the patients of our clinic presents pronounced symptoms of the disease.

This patient has been treated for uterine disease—a not uncommon occurrence—as coccygodynia has many symptoms which are frequently attributed to, or are sometimes associated with, either uterine or rectal disorders. She complains of pain in the coccyx when sitting upon a hard seat, that the pain is aggravated by coughing, sneezing or defecation. A physical examination of the pelvis and pelvic organs having been made, we find all of her pains were aggravated in attempting to move the coccyx. The bones are not inflamed, necrosed or apparently diseased in any way. When they are in a condition of perfect rest, there is no pain, but when moved by my hand or by the contraction of muscles having a coccygeal attachment, or by change of posture, the sufferings are severe. Without dwelling at present upon this particular case, I desire to direct your attention to a general consideration of the disease designated as coccygodynia.

About twenty-five years ago, Sir James Y. Simpson directed the attention of the profession, in one of his public lectures, to a peculiar form of disease of the coccyx, which had hertofore had no place in medical nomenclature, which he called coccygodynia. Since then this affection has been known as coccygodynia, coccyodynia, coccygalgia and coccyalgia.

The lectures of Simpson on diseases of women were begun twenty-two years ago, in the *London Medical Gazette and Times*, and continued to be published in that journal for the following two years.

These lectures were first published in the United States in 1863. In one of his clinical lectures, Prof. Simpson directed the attention of his class to a case of disease in the hospital, saying, "you will find, I believe, no description of it in any book." He further stated that he purposed subjecting the patient to an operation on account of her disease, such as, so far as he was aware, had never been performed before, or, as he qualified his remark, "at least under similar circumstances."

Although Simpson was the first to give a significant name to this affection, an American surgeon of distinction was the first to recognize its existence, as well as operate for it.

The late Dr. J. C. Nott, of New York, but then a resident of Mobile, Ala., was the first to describe this disease in 1844, under the name of "neuralgia of the coccyx." He published the history of two cases in the *New Orleans Medical Journal*, one in 1844 and the other later, in which the symptoms were fully given. In each case the bones of the coccyx were extirpated, resulting in the complete relief of the suffering patients.

In consequence, Dr. Nott receieved many complimentary letters from prominent members of the profession, among which was one from Professor Charles Meigs, of Philadelphia, who attached great importance to the pathology and treatment of the disease brought to notice by Dr. Nott. It is related that the latter gentleman, in return for the complimentary remarks by Prof. Meigs, sent to him the two extirpated bones, which were annually exhibited by Prof. Meigs to his classes, as long as he continued to lecture in Jefferson College.

It was strange, that notwithstanding the publicity given to the

papers of Dr. Nott, they failed to attract sufficient notice to become known to Simpson, and until quite recently there has been no allusion to the disease under consideration in the majority of the text-books upon either surgery or diseases of women.

The name first given to the disorder by Simpson of coccygodynia, was dropped for a time, and it was generally designated "coccyodynia." In the clinical lectures of Prof. Simpson, published in 1863, the term "coccyodynia" is employed, but in the posthumous work of Professor Simpson, edited by his nephew,* coccygodynia is the word again made use of. It has also been adopted into the nomenclature of Robert Barnes,† and many of the leading European gynecologists.

Coccygodynia is, etymologically, the correct term, rather than coccyodynia, coccygalgia, or coccyalgia, to designate this disease, the literal meaning of which is "pain in the coccyx." The name "coccygodynia" does not in the least define the pathology of the affection, as it simply means "pain in the coccyx," as we speak of pleurodynia or mastodynia, to designate pain in the side or breast.

This disorder consists of a peculiar state of the coccyx, or the muscles attached to it, rendering their contraction and the movements of the bone very painful, presenting a condition analogous to vaginismus, or fissure of the anus, when disease causes painful contractions of the constrictor vaginæ, or sphincter ani muscles.

Coccygodynia is not infrequent, as many cases have been observed since the attention of the profession has been called to it by surgeons who had seen it previously without regarding it as a special disorder.

The most marked peculiarity of coccygodynia is the sensitiveness and pain about the coccyx when there is movement of the bone, or pressure upon it. Most of the patients affected by it are obliged to sit on one hip, or with one side resting upon a chair, and the dread of causing pain to the sensitive part makes them awkward and miserable; they dread sitting down, and the

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* Clinical Lectures on Diseases of Women, by Sir James Y. Simpson Bart. Edited by Alexander R. Simpson, M.D., etc. New York, 1872.

† A Clinical History of the Medical and Surgical Diseases of Women, by Robert Barnes, M. D., etc. Philadelphia, 1878.

erect posture, putting some of the muscles upon the stretch, causes pain, and thus many patients, able neither to sit or stand with comfort, become bedridden, and, as a consequence of the supersensitiveness of the coccygeal region, are compelled to so support their persons with cushions, that no pressure is allowed upon the painful part. A deep inspiration, coughing, sneezing, or any sudden muscular movement, causes excruciating pain. Again, there are other cases where the symptoms are not so aggravated; some, when walking, will have pain with every step, while others can walk without any painful sensation. Others, again feel most pain when the bowels are evacuated, or under any circumstances in which the sphincter, or levator ani, or the ischio-coccygeal muscles are called into action. The pain in some instances is not acute, whereas in others it becomes perfectly intolerable.

As the disease has symptoms which are frequently attributable to, or even sometimes associated with uterine or rectal disease, patients treated without obtaining the expected relief from their suffering and trouble despair of being cured, lose faith in therapeutics, and expect, but all in vain, that the menopause will end their chronic discomfort. In this connection the mention of the menopause is significant of one peculiarity of this disorder, and that is the fact that it seems to be found only in women. Men may have inflammation or necrosis of the coccyx from traumatic causes, being analogous to coccygodynia, but the disease under consideration, upon the authority of the limited number of observers, when induced by traumatism, seems to be from the class of injuries to which the pelves of women alone are liable. It is an important fact that the disease frequently manifests itself from other causes than traumatic, as many cases occur where there is not the least indication of injury, inflammation, or any form of disease of the bone itself.

Drs. Simpson and Nott have found the disease exclusively among women; and Thomas, Barnes, Courty, Nonat, Gallard, Le Blond, Sinéty, and other recent authors, include this disease in their several works upon gynecology.

We have the most convincing proof that the pain of this disease is due to the action of muscles attached to the coccyx, and

this development is a necessary consequence of the greater size of the female pelvis. Then, again, as already stated, the pelves of women are subject to injuries to which the pelves of men are not liable. Dr. Simpson says that it is by no means very easy to understand why the action of particular muscles should be attended with the production of pain in particular instances. It may be that the disease is confined to the tendons of the muscles, or the portion of the coccyx from which they spring; or possibly, certain muscles, during their action, may bring the bone in contact with a supersensitive nerve or some inflamed structure, and thus give rise to the painful sensation.

Dr. Nott, in a paper which was published in the *American Journal of Obstetrics* (vol. i., No. 3), and read by him before the New York Obstetrical Society, on Coccygodynia, spoke of an article taken from Virchow's *Archives of Pathology* (1860, vol. xviii.), on the "Glandula Coccygea of Man," in which an account is given of a small gland, usually about the size of a hempseed, situated on the anterior surface of the end of the coccyx, connected with filaments of the ganglion impar of the sympathetic nerve, and with the small branches of the arteria sacrialis media, between the levator ani and the posterior end of the sphincter externus. The gland is rich in nerves derived from the terminal branches of the sympathetic, which form microscopic net-works perforating the stroma, and are occasionally seen connected with ganglion cells. The writer says: "Although the function of the organ is at present unknown, it is already of great interest to the pathologist because it is not only the seat of the so-called coccodynia but also of the hygromata cystica pernincalea." "Upon what observation," adds Dr. Nott, "rests the assertion that coccyodynia or coccygodynia is caused by this gland I am not informed." Barnes also calls attention to the article just mentioned, and adds of the glandula coccygea: "When we consider its highly vascular and nervous elements and its position, we can hardly doubt that in some cases it may be the seat of coccygodynia." Other writers seem to attach no importance to the "glandula coccygea" as connected with this disorder.

It is well to bear in mind the anatomy of the parts, in order to have a better understanding not only of the phenomena attend-

ing the affection, but of its pathology. There are attached to the coccyx, the greater and lesser sacro-sciatic ligaments, the ischio-coccygei, the sphincter ani, and levator ani muscles, and some of the fibres of the glutei muscles.

Certain movements of the body, as defecation, rising from the sitting posture, walking, etc., bring these muscles into activity, and it is a well-known law that where any chronic irritation is brought to bear upon a muscle, there follows a tendency to spasmodic contraction, and acute pain is produced whenever an effort is made to elongate the contracted muscle.

I have alluded to the analogy between the disease under consideration and fissure of the anus and vaginismus. In these latter affections, irritation in the region of the muscles causes painful contractions.

I am convinced, from cases coming under my observation, that the characteristic pain of coccygodynia is, in some cases at least, produced in the same way. Now we know that we can overcome the spasmodic contraction of vaginismus and fissure of the anus, by anæsthetizing the subject. I observed in one case, very markedly, that an attempt to examine a grumbling coccyx without an anæsthetic, caused the point to be drawn forward, and the muscles attached were made very tense, the contraction being accompanied by excruciating pain. The administration of ether caused the muscles to be relaxed, when the coccyx became exceedingly movable. Now, there is no pain in vaginismus or in fissure of the anus, when there is perfect rest of the parts, neither is there in coccygodynia; but, owing to the number of muscles attached to the coccyx, a slight movement of the body produces pain, because the movement involves their action.

This leads me to speak of the causes of this disorder. It need not be due exclusively to any injuries received during the process of parturition, for we find it among those who have never borne children, and even in the young and unmarried. Among the assignable causes, other than child-bearing, are direct injury inflicted upon the coccyx by blows or falls, certain forms of exercise, as riding on horseback, or undue exercise of any kind, exposure to cold, and other climatic influences. I am myself convinced, from observation in several instances, that vaginismus, or

fissure of the anus, or any source of irritation to the muscles included in the vaginal, perineal, or coccygeal region, may lead to this affection. Courty alludes to the local influence of cold in causing the disease, and cites one case caused by the patient's habit of sleeping in bed with her "seat applied against the wall." Simpson and Scanzoni have observed the disease many times where the subjects had recently been in childbed. In nine cases mentioned by Scanzoni, the coccygeal pain was manifest immediately after the application of forceps.

As previously mentioned, there are some symptoms attending coccygodynia similar to those found in uterine diseases, hence the danger among a class of diagnosticians who class all troubles of women under the one head of uterine disorders, of mistaking one for the other, and of attributing the sufferings, of which they complain, to the sympathetic pain of affections of the womb.

Barnes,* writing of coccygodynia, states positively that he has "traced it to retroflexion of the uterus."

Nonat† says, that with one of his patients this pain was caused by the introduction of a large vaginal speculum. Nonat is of the opinion that coccygodynia "presents two forms, differing by the nature and by the location of pain." Sometimes this pain has its seat specially in the sacro-coccygeal articulation, and then it may be of a rheumatic origin, or from a traumatic cause. He says that in the first it usually proceeds from exposure to cold, whereas in the latter it is usually provoked by some exterior violence, as by a blow, a fall, an exaggerated distention of the articulation by the head of a fœtus, forceps, or speculum. This author believes that sometimes the affection is of a nervous nature, and offers all the characters of neuralgia. It is then, especially, that it is to be ranked along with the neuralgic complication of uterine and peri-uterine affections.

Nonat, who has written but little that is valueless, expresses himself so positively and clearly on certain points regarding coccygodynia, that I quote further from him, not literally, but substantially in the abstract as follows: "When the coccygodynia is articular or sacro-coccygeal, it is augmented by pressure upon

* Op. citat.

† Maladies de l'uterus, Paris, 1874.

this point, by movements of the extremities of the coccyx, and by all changes of position a little '*brusque*.' It is also increased by a sitting position, and by efforts at defecation. The pain is of a lancinating character, and extends to neighboring parts.

"It can exist independently of all uterine or peri-uterine affections, but if present coincidently with one of these affections, it does not receive any modifications by their treatment.

"The neuralgic variety of coccygodynia does not occupy any seat as exclusive or as limited as the articular. The pain is more extended and more diffuse, extending to the parts near to the coccyx, sacrum, in the ano-perineal region, and in the direction of lumbar and sacral nerves. It is lancinating, and produces an hyperæsthesia of all of the skin in the sacro-coccygeal region; it is sometimes intermittent, while at other times it presents alternately, remittences and exacerbations.

"These exacerbations are sometimes of extreme violence; they coincide more often with fluxionary and inflammatory recrudescences, which are themselves produced in uterine or peri-uterine affections, particularly at menstrual epochs."

Neuralgic coccygodynia coexists or alternates sometimes with other neuralgic pains.

When coccygodynia is associated with disorder of the uterus or its annexes, it follows often a parallel progress with these diseases; increasing or diminishing with them, receiving a favorable influence from their treatment, and sometimes cured with them.

In some cases, however, the coccygeal pain is rebellious, and persists long after the uterine or peri-uterine disorder has disappeared. It then demands treatment for itself. Nonat seems to have devoted more space in his work than any other French writer has done to the consideration of this disorder. One of the very latest* volumes by a French author on "Diseases of Women," which, by the by, is an excellent work in many respects, devotes less than two pages to coccygodynia. In this chapter its pathological anatomy is disposed of in four lines, as follows: "There has evidently been described under this same title affections of variable nature. It is thus that there has been

* Manuel Pratique de Gynæcologie, par le Dr. L'De Sinety, Paris, 1879.

found lesions of the periosteum, or of the sacro-coccygeal articulation, an abnormal mobility, or an increased length of the coccyx."

With the exception of this remarkable clause, there is nothing on the subject, by this author, but what has appeared many times before.

A careful physical examination enables one to differentiate coccygodynia from any of the other disorders to which the region is liable. As a rule a valuable diagnostic sign is the extreme mobility, especially under the influence of anæsthetics, of the supersensitive portion of the bone drawn forward by muscular action.

And now let us turn from the causes and the diagnosis of this disease to speak briefly of its treatment.

Cases of coccygodynia which arise from climatic causes may be similar to cases of myalgia in any of the other muscular structures of the body, will be of rather an acute type, and yield to very much the same treatment as is employed in myalgia.

Chronic cases of a mild character will sometimes yield to epispastics or mild blistering, and anodynes administered either by the mouth or rectum.

The hypodermic injection of morphia over the coccyx may overcome the irritability and painfulness of the muscles, and possibly effect a cure. But if the case does not improve in a short time under some of these modes of treatment we must have recourse to surgical art.

So far as my own experience has extended, I agree with the majority of those whose observations of the disease are on record, that in well-marked cases medicine is of but little avail.

Hence, we can understand why patients, deeming their disorder incurable, refuse to have further medical attendance. On the other hand it will not do to leave the disease to nature, as patients gradually become worn-out with pain, and while waiting for nature's tardy reparation, their vigor diminishes, oftentimes the chief reason being their inability to take any kind of exercise.

Courty, writing on the treatment of this affection, begins by the statement that "a cure is difficult to obtain." In illustration of this assertion he adds that in twenty-four cases observed by

Scanzoni, ten only were terminated by cure; in nine there was simply amelioration; in the remaining five the definite results were unknown. The treatment employed was extremely varied, including leeches, blisters, belladonna, aconite, chloroform, morphine, etc.*

It would seem from this, that he relied only on medication, and did not, in a single instance, have recourse to surgical measures.

Courty further states that Hörschelmann of St. Petersburg, "obtained, in 1862, two cures, thanks to aconite," but both were children. This portion of the chapter concludes with the assertion that Simpson, who has seen all these means fail, first proposed the subcutaneous separation of the coccyx from its muscular attachments, and when this does not effect a cure he does not hesitate to remove a part, or the whole of the coccyx.

The divisions of the disease by Nonat have a practical bearing upon its treatment that should not be lost sight of.

I took the position several years ago, in a published paper on the subject of this lecture, that the disease is not neuralgic, and that the majority of cases require surgical treatment only.† There was at that time but little literature relating to coccygodynia, and the conclusions regarding it were based almost exclusively on my own observations. Increased observation and knowledge leads me to believe that there *may be* typical cases of articular and neuralgic coccygodynia, and that medical treatment, to be intelligently directed, must depend on their differential diagnosis. Further, in every instance therapeutic means should be given a full and fair trial before having recourse to any kind of surgical operation. I say this on the authority of reliable observers, rather than from my own observation; the truth being, that while I have had some patients cured by the administration and local application of remedies, the majority of my patients with coccygodynia have been benefitted only through surgical interference. It is taught that the treatment should be different in one variety than in the other. For instance: in the

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* Maladies de l'uterus, etc., par A. Courty, Prof. etc., Paris, 1872.

† Coccyodynia. A paper read before the Mich. State Med. Soc., June 12, 1873. By Edward W. Jenks, M.D., etc.

articular form it is important that the patient should repose in the horizontal position in bed, thus securing immobility of the pelvis.*

Each topical application of opium, or belladonna plaster, or chloral liniment, may often prove of service, but when the pain is severe, more potent remedies are required, such as the hypodermic injection of morphine, or atropine, or a combination of the two.

In the neuralgic coccygodynia, according to Nonat,† "if the disorder does not yield to the treatment directed to the uterine or peri-uterine affection, with which it is so frequently complicated, it should then be treated as a simple neuralgia;" the use of topical applications are about the same as mentioned in connection with the articular form; hypodermic injections of morphine, or atropine, are essential in this disorder; rectal suppositories of opium and belladonna may be used with great advantage. I have myself prescribed, with good results, particularly when the coccygeal pain was aggravated by defecation, suppositories of extract of stramonium. If the coccygodynia is of an intermittent character, our principal therapeutic reliance is quinine, which should be freely and persistently administered.

Nonat says that two cases treated by him, where all the means just mentioned had failed, he succeeded in curing, by the use of the actual cautery applied over all of the painful region. This author, who seems to have given medical therapeutics a fair and impartial trial, also concludes that the refractory cases that do not yield to treatment should be operated upon after the method proposed by Simpson.

I have spoken somewhat at length on the medical treatment of this disease, for the purpose of informing you how much you can reasonably expect from medication, and also to show you by what process of reasoning experienced gynæcologists have come to the conclusion that while in some instances medical treatment will effect cures, there is a limit to it, where surgical aid must be sought, and through which radical cures can alone be effected.

There are two operations possible for the cure of this painful disorder, neither of which are attended with any great risk to

* Nonat, op. citat., p. 1620.

† Op. citat., p. 1020.

the patient. The first I shall mention is a subcutaneous operation, originated by Simpson, which has for its object "the complete separation from the coccyx of the muscular and tendinous fibres that are in connection with it," upon a principle somewhat similar to common operations for fissure of the anus and for vaginismus. To effect this, a tenotomy knife may be passed underneath the skin at the inferior portion of the coccyx, then turned flat upon the bone, and all the muscular and tendinous attachments severed, first upon one side and then on the other, as far up as the sacro-coccygeal articulation. The operation is quickly and easily performed, attended with but little pain or loss of blood, and by this simple proceeding patients are not unfrequently instantly relieved from their sufferings, and permanently cured.

Simpson relates one case of a lady who had long suffered from coccyodynia, where, while he was performing this operation, the slender knife broke deep in the tissues.

He told the patient of it, and she at once raised herself up, alarmed to hear of the calamity; "but," he adds, "before I had done telling her of what had happened, she had time, in sitting up, to discover that she had been cured of her disease, and, rejoiced at the discovery, quickly replied: 'Oh! never mind, my pain is gone—let the knife remain;' and there, for aught I know, it remains to-day."

The other operation is the extirpation of part or the whole of the coccyx. In very fleshy women the proceeding just mentioned is not easily performed, and in the case of patients where the subcutaneous operation may have relieved for a time, but not permanently cured, amputation of the coccyx should be resorted to, as it effects a radical cure.

There are certain conditions where I would perform the latter operation instead of prefacing it by the former, as when we have reason to think the bone is diseased, and in such cases, as with one of my own, where the coccyx was extremely painful and movable, and with the point drawn forward by the action of the muscles, so that the mobile portion was about at a right angle to the remaining part, acting as a foreign body and as a constant irritant. I also deem it better to remove the bone when it is both

supersensitive and anchylosed, which, however, is an exceptional condition.

The mode of operating for amputation of the coccyx is as follows: Anæsthetize the patient, and place her upon her right side, that the index finger of the left hand may be introduced into the rectum to press the coccyx backward, and as a guide during the progress of the operation.

Cutting down to the bone with a scalpel, it can be further separated from its attachments by means of scissors, or a knife, as we may choose, and selecting the location where amputation is to be made, we can then disarticulate at the joint, or follow the mode of Simpson, who used the bone-forceps and cut the bone without reference to joints.

By one of the procedures mentioned, namely, separation or amputation, we can confidently expect a cure; and as neither is attended with danger, we are also able to class these operations among the satisfactory ones of surgery.

I cannot conclude without giving you two important points relating to amputation, which were taught me by my earliest operations, as follows: 1st. In case you amputate the bone by means of cutting forceps, remember that the bone of the stump should be "rounded off," so that there will be no sharp points to prick and annoy the patient whenever the skin of that region is made tense. In one patient I operated upon, where the removal of the bones of the coccyx put an end to a long period of suffering in every respect, except the one just named, a second operation became a necessity.

2d. I believe that disarticulation is the better plan; and if you decide to operate by this mode, remember that in case there is articular cartilage on the stump, it should not be allowed to remain intact; on the contrary, you should cut away thin slices of the cartilage, by reason of which the process of healing will be quickened and made more perfect.

70 Monroe Street, Chicago.