prospect of relief is much diminished. Still ablation may in some cases be attempted.

Where ablation has to be abandoned, we must fall back upon caustics or palliative treatment. All the measures adopted in the case of cancer of the uterus find application here.

In St. Bartholomew's Museum is a specimen (No. 32.61) of *melanosis* of the labia and vagina. The parts were removed by operation, on account of a large mass of melanotic disease, which, arising at the front part of the vagina, encroached equally upon either labium.

In the same museum is another specimen (No. 32.42) of a labium on the surface of which is an oval elevated warty growth of moderately firm texture, and with a finely-granulated surface, very similar to the *chimney-sweeper's cancer* of the scrotum.

The *vascular excrescence, caruncle, or tumor of the meatus urinarius.*—This is in many cases an outgrowth from the mucous membrane of the urethra, most commonly found at the meatus. At this orifice it often protrudes, bulging out as a small tumor, sometimes, but rarely, as large as a cherry. When it so bulges, of course it is easily seen, and so it has come to be described as a disease of this particular spot. But a similar condition not seldom extends a little distance up the urethra. The word "vascular" gives a good idea of its appearance. It may be roughly described as an outgrowth of vessels loosely held together in a mass by a little connective tissue, and covered by a thickened mucous membrane. The surface is irregular, a little lobulated, deep red or blue-red. It is soft, difficult to seize with tenaculum or forceps, it so readily breaks down. The morbid mass and appearance are generally bounded by the margin of the urethral orifice, that is, the growth seems to be peculiar to the urethral mucous membrane; it stops abruptly at the mucous membrane of the vulva.

Quekett examined one of these vascular growths, and found it to be composed of epithelial cells, and a number of capillaries coming up close to the surface. This explains the occasional tendency to bleeding. Wedl, in his *Pathological Histology*, describes and figures the appearance presented by the urethral caruncle. He regards these bodies as "dendritic, papillary new formations of connective tissue." The one he examined was of a somewhat elongated figure, of a bluish-red color, and spongy texture, and exhibited when cut into, cavities containing colloid matter. The most interesting point was the distribution of the bloodvessels, which could be very distinctly traced in transverse sections, moistened with a solution of sugar or common salt. Their ramification precisely resembled that seen in the vasa vorticosa. Several vessels of considerable size entering one of the lobules divided into a multitude of smaller ones, which, though not of capillary dimensions, made numerous undulating curves, extending up to the periphery of the lobule, where they terminate in mostly short and abrupt loops. The walls of these vessels were everywhere simple, like those of capillaries. There were extravasations of blood at several points, of old and recent occurrence. The late Dr. John Reid examined for Sir J. Simpson a very sensitive and painful caruncle, and came to the conclusion that there was a very rich distribution of

nervous filaments in it. It seems, in many cases, to be analogous to hemorrhoids in the anus.

It is most frequent, according to my observation, in women who have reached the climacteric, or passed it, and who have been married. But it is found occasionally in girls and young women, single or married. There is a tendency to venous hæmostasis in the pelvic organs, especially in the mucous membrane of women advancing in years, which appears to me to predispose to these irregular vascular protuberances. The excrescence may be "gummous." At least, I have seen cases connected with secondary syphilis. And Scanzoni believes they result from chronic urethritis. In many instances there is a history of gonorrhœa.

The principal *symptom* of the disease is acute agonizing pain on micturition, compelling the sufferers to postpone the inevitable torture by submitting as long as they can to retention in the bladder. Hence there is a retrograde risk of inflammation of the mucous membrane of the bladder, and distension. Not uncommonly a little blood is passed with or after the urine; and bleeding may occur at other times, as from rubbing to ease the pain, friction in walking, and sexual intercourse. Dyspareunia is almost a necessary consequence. Often there is a muco-purulent discharge from the urethra and from the vagina, which may be an accidental complication. Pains in distant parts seem to take their rise from this local disease as reflex or sympathetic phenomena. The general health is often seriously impaired.

It may give rise to the suspicion of stone in the bladder. The constant pain exhausts the nervous force, inducing prostration and disorder of the functions of other organs. The real source of the mischief is often long overlooked by those who neglect the prime clinical maxim of making a direct examination of the part which is the central seat of pain.

The *diagnosis* is made out by taking the indication furnished by subjective sensations as the guide to objective exploration. The patient lying on her side, the upper labium is drawn up so as to expose the structures of the vestibulum, when the angry-looking orifice of the urethra will be seen. By passing a catheter gently we gain information as to the state of the urethra beyond the meatus. And it is often useful to dilate the urethra with a Weiss's dilator, or the excellent instrument contrived by Dr. Emmet for dilating the cervix uteri.

The *treatment* consists in destroying the offending growth. This may be done more or less successfully by various methods. Where there is much irritation, and the patient declines to submit to operation, some relief may be had from lead lotion, or poppy-head fomentations. Simpson speaks highly of an ointment consisting of two drachms of hydrocyanic acid to an ounce of lard. A bit of this of the size of a pea is applied to the part three or four times a day. Aconite and chloroform ointments are also useful. But things of this kind can only be sanctioned as temporary and trivial palliatives. If the tumor present a distinct polypoid form, it may be removed by a ligature, by snaring it, and cutting through its base by a fine wire écraseur, or by snipping off with scissors. Excision is better than the ligature. The tumor must first be seized with a small hook or forceps, and lightly drawn out, so as to enable the scissors to get well at the base. Some bleeding usually fol-

lows, but compression with a bit of lint steeped in solution of perchloride of iron, or touching with the actual cautery will soon stop it. Still these troublesome growths are very apt to recur. There seems an active germinating or proliferous property in the mucous membrane from which they rise, so that the smallest particle left retains the property of reproducing the disease. Mere excision, says Richet (*Gaz. des Hôp.*, 1872), will not remove the contraction and hypertrophy of the urethra, which often give rise to the most painful symptoms. To effect this he advises forcible dilatation of the urethra.

I have applied nitrate of silver repeatedly, always with good effect for a short time, although causing great pain at the moment of application. I have also used potassa cum calce, nitric acid, strong carbolic acid, and other caustics, all with more or less advantage. But the best plan, I believe, is to touch them with the actual cautery, either the hot iron or copper, or the galvano-caustic wire or button. Cold-water dressing should be applied after the operation, and astringent lotions when the sloughs have fallen.

Rizzoli, in a useful clinical memoir (1875) on the growths which are developed inside the female urethra, describes a case of *angioma* of the urethra, and another of the clitoris. These excrescences were formed of vessels possessing a degree of erectility.

Small *mucous polypi* may form in the urethra, cause dysuria and bleeding. Polypi of fibro-cellular structure are also found. They may be removed by scissors; and if any bleeding ensue, a light touch with the actual cautery, or pressure with a plug soaked in tincture of iodine, will stop it.

The orifice of the vagina is subject to *fissures*. These are found as linear irritable ulcers, or clefts in the mucous membrane. The most frequent seat is the posterior commissure, but I have seen them at the anterior commissure. They are sequelæ of slight lacerations experienced during labor; they have been produced by coitus, and have resulted from an altered condition of mucous membrane, caused by inflammation, especially of a syphilitic character. As fissure of the anus is a source of pain during the performance of the functions of this part, so is fissure of the vagina or vulva. It may be chafed and irritated by walking, by discharges, by a drop of urine; but the most distressing symptom is dyspareunia. The painful spot may be detected by digital examination, and by retracting the labia it may be brought into sight.

The treatment is the same as for anal fissure. The edges may be torn open by the fingers, or it may be divided by the knife. But the incision should not be deep, lest severe hemorrhage ensue. It is enough to make a shallow incision through the base of the ulcer.

I have in several cases observed that *epithelioma* began around the orifice of the urethra. The actual cautery may in such cases be applied with fair success.

COCCYGODYNIA.

This disease has become familiar to gynæcologists through the writings of Sir James Simpson (*Diseases of Women*, 1872, vol. ii., edited by A. R. Simpson). But Dr. J. C. Nott, of New York, in an interesting memoir on the subject, refers to two cases published by himself in the *New Orleans Medical Journal* fifteen years before Simpson's first communication.

The name is derived from coccyx and ὀδύνη, pain. The leading symptom is pain in the region of the coccyx felt by the patient whenever she sits down and rises, and sometimes when she remains in a sitting posture. Most of the patients affected with it are obliged to sit on one hip, or with only one side resting on the edge of a chair, or with the weight partially supported by a hand on the chair. Some patients dread sitting down. There are other movements of the coccyx liable to be attended by pain. Thus, patients have pain with every step they take, whilst in others walking causes no uneasiness. Others feel the pain most when the bowels are being evacuated, or under any circumstances in which the sphincter or levator ani, or the ischio-coccygeal muscles are called into action. The pain is not in every case very acute, nor at all times equally severe. The distinguishing feature of the disease in every case is that the pain is felt at the lowest part of the spine, or rather in the seat of the coccyx, and where pressure always aggravates it. Pressure and movement of the coccyx too, with the finger in various directions, produce pain, and the kind of movement which is then attended with suffering differs in different cases.

Simpson believes the pain is due to inflammation of the coccygeal joint or other morbid change, when any action of the muscles in connection with it, by moving the joint, produces pain.

We might naturally look for the origin of the disease in some injury of the part; and in a considerable proportion of cases injury can be traced. But it is remarkable that the disease occurs in the unmarried, and where no history of injury can be made out. I, myself, have known several aggravated cases follow labor. In these I cannot doubt that the joint received injury during the passage of the child's head. In some cases we know the sacro-coccygeal joint is anchylosed, the tip of the coccyx projecting so much forwards as to form an angle with the lower part of the sacrum. The anchylosis is likely to give way during labor. And where there is no anchylosis, as the head emerges, the coccyx may be felt to be stretched very much backwards, and under the strain some of the fibres of the anterior ligaments which bind this bone to the sacrum may be torn, and in the joint thus exposed and injured inflammation is very apt to be set up. Simpson saw abscess follow.

The coccyx again is liable to fracture or dislocation from direct violence, as from a fall on the seat. Patients have complained that "a bone grows in," and so it is found. It is also liable to malformations, to deficient development, to tumors, and even double monstrosity by inclusion.

But in a certain proportion of cases no local lesion can be made out, and we are driven to conclude that the disease is a neurosis, a form of neuralgia, the expression perhaps, of some remote morbid condition. But latterly some new light seems to be cast upon these more anomalous cases. In Virchow's Archiv, 1860 (*Die Steissdrüse des Menschen*), Luschka gives an account of a small gland situated just at the anterior end of the coccyx; it is in immediate relation with the hindermost part

of the levator ani, and is connected with filaments from the ganglion impar of the sympathetic nerve, and with small branches of the middle sacral artery, between the levator ani and the posterior end of the external sphincter. The gland is rich in nerves, which form a network perforating its stroma.

This, the "glandula coccygea," Luschka says, is probably the seat of the hygroma cystica perinæalea. And when we consider its highly vascular and nervous elements, and its position, we can hardly doubt that it may in some cases be the seat of coccygodynia.

Some cases called coccygodynia I have found to be due to fissure of the anus, and to the conditions which induce the spasmodic action of the vulvar and perineal muscles, and known as "vaginismus." I have also traced it to retroflexion of the uterus.

The *diagnosis* is made out by local examination. The forefinger introduced into the rectum is applied to the inner aspect of the sacro-coccygeal joint, whilst a finger of the other hand is applied to the outer aspect. The bones and the joint thus embraced between the two fingers are completely explored, and the seat of pain and the condition of the parts are easily determined.

The *treatment*, according to Simpson is surgical. But I have met with cases which, after long and intense suffering, got well spontaneously, or when uterine disease and general disorder were removed. At the same time, I am satisfied that surgical treatment is occasionally essential to relief. One may exhaust sedatives, neurotics, and tonics, and still the pain persists. When there is evident inflammation, leeches will be serviceable, followed by counter-irritation. Temporary ease may be obtained by the local subcutaneous injection of morphia. The surgical treatment is to completely separate from the coccyx the muscular and tendinous fibres that are in connection with it. This is done by a tenotomy-knife passed under the skin at a short distance from the tip of the coccyx, and made to shave along the posterior aspect of the bone, and then to divide the muscular and tendinous attachments, first on one side then, and lastly, all round the tip of it. It is not in every case necessary to make the division so free. In some instances the division of the fibres of the gluteus maximus of one or the other side, or detachment from the coccyx of the sphincter and levator ani may be enough. No bleeding attends the operation, which possesses also the other advantages of subcutaneous sections. Simpson admits that this operation occasionally fails, and that he consequently suggested the removal of the coccyx.

Dr. J. C. Nott prefers extirpation of the bone. Simpson's subcutaneous incision around the coccyx would divide the nervous branches which supply Luschka's gland, and in this way its success in some cases may be explained.

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