followed in all its phenomena. But the process by which the epithelium of the intestines is removed, has the greatest analogy to the formation of vesications; and Böhm has himself, in many places, compared the one with the other. The cause of desquamation is a mechanical and passive separation of the cuticle by the exudation, and the exudation is the essential part of the disease. This may be produced in two ways,—either by a primary general alteration of the blood, by which it becomes thinner, or by a local stagnation and change of it by a process which *we name inflammation*. The first is improbable, because the process is *limited to the intestinal canal*, although the inner surface of the lungs and other organs is not less delicately formed. For the second view, the symptoms of the disease and other morbid appearances which Böhm found after death, are all favourable: as for instance, the injection of the vessels which is constantly coincident with the desquamation,—the tinging of the whole substance of the villi with blood,—the presence of fibrinous coagula in the effused fluid,—and the exudation of plastic lymph on the outer surface of the mucous membrane, in the region of the Brunnerian and Peyerian glands. All the secondary symptoms of cholera are explained by the great loss of serum which takes place so rapidly from the walls of the intestines, from the alteration of the blood thereby produced, and from the extended affection of the nerves of the internal surfaces. These circumstances do not act differently from a *burn*, which is attended with blisters over the whole surface of the body.

We think it highly probable that these morbid cells generate the specific poison of the cholera; and the fact of a camp thus contaminating those who are within the circle of the fecal evacuations, (*not from ordinary putrefaction and decomposition which does not produce Asiatic cholera*;) re-infecting those who shortly afterwards occupy the same position, connected as it has often been with the additional fact of the cessation of the disease on frequent removals of bodies of men into new and uncontaminated districts, all seem to corroborate the inference we draw from an undisputed pathological phenomenon. We are fortified in this view, too, by the acknowledged danger of a residence near the mouths of sewers, when the disease has once made its appearance; and the great fatality and frequency of the disease in those cities where dirty privies are situated within the houses,—as in Paris, where the first, second, third, fourth, fifth, and even sixth floors has a foul nest of contagion of this character, and where the habits of the people are so devoid of cleanliness in this particular. I lived in Paris the year before the cholera broke out; it was then dangerous to walk in many of the narrow streets at night, lest something filthy coming down from an upper story should assail you. As for French privies no Englishman could use them, but willingly paid two sous for a “cabinet d’aisance a

l’Anglais.” I hope Glasgow does not offer another example of this character, but not having resided there, I am unable to state whether such facts as I witnessed in Paris may not account for the great fatality of cholera in some towns of Scotland.

The French live more upon vegetable diet than the English, and hence, probably, are more susceptible of the malignant form of cholera. Comparative anatomy teaches us that the development of the intestinal tube depends upon the nature of the nourishment. Animals which feed on vegetables require greater powers of assimilation, and have a much larger and longer digestive apparatus than those which are carnivorous. The difference in the length and diameter of the intestinal convolutions of the dog and the horse is immense. We have no doubt that the Hindoo, feeding wholly on rice and vegetables, has more amply-developed small intestines than the flesh-eating European, and hence a larger surface becomes exposed to a disease which seems to concentrate its morbid action upon this doubly-worked and highly-sensitive mucous membrane. The soup-fed and water-drinking children at Tooting, approximate in their susceptibilities to that of the Hindoos; their crowded state concentrated the contagion, and hence the mortality at which we have all shuddered.

(To be continued.)

SHORT NOTES ON THE OPINIONS AND PRACTICE OF THE LATE JOHN PEARSON, ESQ., F.R.S., ON SYPHILITIC DISEASE.*

By W. S. OKE, M.D., Physician to the Royal South Hants Infirmary.

Dysuria Vesicalis.—This term comprises those diseases of the urinary passages, where the urine is voided with pain and difficulty, in small quantities, and with frequent desire.

1. *Strangury*.—This often arises from the use of acrid aliments and medicines, especially cantharides; and also from exposure to cold after the body has been much heated. When it proceeds from these causes, it may generally be removed by large quantities of diluting drinks,—by opium, soothing enemata, emulsions, &c. When brought on by riding on horseback, a tea-spoonful of the sweet spirit of nitre will often give relief.

It often occurs as the result of ischuria, the bladder becoming as intolerant of the stimulus of the urine as before it was insensible to it. This will generally subside without remedies. In strangury from this cause, after opening the bowels, it is customary to give camphor, the mucilage of gum-arabic, &c., but without much benefit. The best method is to give bark freely,

* Concluded from page 661 of last Volume.

after a purgative, which will generally be found to give relief.

Strangury is not an unfrequent consequence of gonorrhœa, the patient feeling a frequent inclination to void his urine, and passing it with uneasiness. In this case the infusion of uva ursi, hemlock, and bark, may be given with advantage, but the remedy mostly to be depended upon is opium, combined with small doses of the diacetate of lead.

2. *Irritability of the Bladder.*—This may arise from three causes:—1st. From simple increased mobility of the muscular fibres, producing painful efforts to void the urine. To relieve an irritable bladder from this cause, the uva ursi may be given; and relief will often be observed by passing a bougie a few inches into the urethra, or a very fine bougie into the bladder. Should these means not succeed, a blister may be applied to the sacrum, and the catheter occasionally introduced. Half a grain of the lytta powder will often be found useful, taken three times a-day. 2nd. Irritability of the bladder may be the result of a suppressed gonorrhœal discharge, or metastatic gout. In the former case the indication will be to bring back the urethral discharge, which will best be effected by introducing a bougie into the urethra, smeared, if necessary, with some irritating matter. Should this means fail of such an effect, benefit will probably be derived by blistering the glans penis, and producing an external discharge. When irritability of the bladder takes place from misplaced gout, there is a discharge from the urethra, more or less, like gleet; and in almost all cases of strangury, flocculent matter will be found floating in the urine. Here the object is to bring on a fit of the gout, but in what way this is to be done it is not easy to explain; and the most probable means of producing it, such as plunges into cold water, cannot be adopted with safety. 3rd. Irritable bladder may arise from an abrasion of the mucous surface. In this case thickening and ulceration are to be apprehended, and when this result has taken place, a mucous or puriform fluid is discharged with the urine. Large doses of the balsam of copaiba—as a drachm three times a-day—will be attended with most benefit; and should any blood be mixed with the urine, then, in addition to the copaiba, a glyster of the Infusum Lini and laudanum may be thrown up the rectum; but when thickening has taken place, medicines will only alleviate pain, and the best of them all is opium.

Hæmaturia.—Hæmaturia occasionally arises from general or partial plethora, particularly from a turgid state of the veins about the neck of the bladder, when the patient voids a pint or more of blood after exercise, and without pain. It sometimes occurs from the sudden contraction of the bladder upon the end of the catheter, when introduced to draw off the urine. At other times it is the result of inflammation of the bladder, where

previous disease existed, and is attended with a full pulse, white tongue, and all the ordinary symptoms of inflammation.

Men advanced in years have sometimes bleeding from this part, amounting to one or two drachms in quantity at a time, which is often connected with a diseased prostate gland.

Children also are occasionally subject to hæmaturia, which may be considered as analogous to bleeding from the nasal passages. This case will generally yield to aperients and sulphate of zinc.

When hæmaturia arises from an irritable bladder, associated with dyspepsia, it is not usually dangerous; but if it arise from a fungus in the bladder, or from a diseased state of the prostate gland, the case is beyond the reach of art. When it is caused by inflammation, blood should be taken from the arm, and from the neighbourhood of the bladder; rest and low diet are to be observed; cold should be applied to the pubes and perineum; and castor oil, nitre, and mucilaginous drinks are to be prescribed. After the subsidence of the inflammation, tonics will be found beneficial.

When hæmaturia is apparently derived from a full habit, and is unattended with pain, it may be presumed to arise from plethora. Here general and local bleeding may be tried, but in such cases little can be done. The bladder is very intractable, and the hæmorrhage ceases when it chokes. When there is much languor, small doses of the Oleum Terebinthinæ may be given, and perhaps with benefit; but this remedy is not always to be recommended.

[The following remarkable case of hæmaturia came under my notice about four years ago, and it corresponds with the character of plethoric hæmaturia, above alluded to by Mr. Pearson:—

A lady, aged 67, of stout form, full habit, and of gouty constitution, from successive mental excitement became subject to rushings of blood to the back part of the head, and to palpitations of the heart, accompanied with serous infiltration into the peritoneal cavity, and œdematous swelling of the lower limbs. These symptoms continued for a considerable length of time, and gave rise to, and were eventually relieved by, profuse hæmaturia, recurring at irregular intervals from one to six weeks. The blood was of a venous colour, and sometimes passed in clots, which threatened to obstruct the urethra. This state of things had gone on for three years, and, although she looked pallid from such repeated losses of blood, and was of course weakened by them, still, after the hæmaturia ceased, she always felt relieved of a sense of fulness of the abdomen, and of pain, weight, and stiffness of the loins, which usually preceded it. The bleeding probably issued from the renal function; but as she never complained of any spasmodic pain of the lumbar region, and had never passed any calculous matter, it may be fairly inferred that the bleeding was the result of a plethoric condition of the portal system, rather than of calculi in the pelvic cavities of the kidneys. She had consulted several

eminent physicians without any decided benefit. The hæmorrhage ceased and recurred according (apparently) to the state of the vascular system. The urine, when the hæmaturia was absent, was not albuminous.]

Dysuria Urethralis.—1. *From Indurated Swellings about the Veru-montanum.*—In this case the canal is not much diminished, but the stream of urine is small and voided with difficulty; a kind of gleet is always present, which does not yield to common remedies, and spasm is caused by passing a bougie; there is also uneasiness in the perineum, ardor urinæ, and impatience to void it. The most certain sign of this disease is a bloody state of the semen. The cure must be attempted by the proper use of bougies, and by producing a discharge in the locality of the induration, so as to remove, if possible, the callosities.

2. *From Stricture.*—Strictures of the urethra may be divided into three kinds. 1. Simple contraction. 2. Contraction, with spasmodic action. 3. Purely spasmodic action.

Strictures occur in almost every part of the urethra but more frequently behind the bulb. Strictures sometimes produce a suppression of the secretion of urine, so that, perhaps, the patient makes water once only in sixteen or eighteen hours. When the stricture has been dilated, the secretion is considerably augmented and the stream is increased.

During the existence of a stricture the urine is voided in a small stream, has a forked appearance, dividing into two or three streams, or is flattened transversely, or twisted like a corkscrew.

Strictures are also frequently followed by retention of urine, from any irregularity, such as drinking spirits, and using long continued or violent exercise.

The existence of stricture can only be ascertained by the introduction of a bougie, and in performing this operation the young surgeon should be careful he does not mistake one of the lacunæ of the urethra for stricture, a mistake into which he may be apt to fall.

The existence of urethral contraction does not prove that the patient has ever had any venereal complaint, since it may occur where there has been no gonorrhœa.

There are three methods of curing strictures; first, by incision; second, by caustic; and, third, by dilatation. The method of curing primary stricture by incision is a very dangerous, and has proved a fatal, operation, one indeed which can scarcely be found necessary. The method of cure by caustic is of ancient use, and was long employed before the advantages of the mechanical method were understood. In simple spasm, caustic, judiciously applied, will relieve much sooner than a simple bougie, but it must be admitted that it occasionally produces violent rigors, resembling those of ague; dangerous hæmorrhage, which has brought the patient to the brink of the grave; severe irritation of the urethra, and extensive induration of

the canal, as if a great part of it had been destroyed, producing a lengthened and impenetrable stricture; indeed the inconvenience and dangers are frequently so great, that no persons should make use of caustic in the treatment of stricture unless they are acquainted with the advantages and disadvantages resulting from its employment; besides, strictures may be treated sooner without, than with caustic, and patients are not less liable to a relapse after the use of caustic, than when cured by the simple bougie.

Mode of using Bougies.—With regard to composition, bougies ought to have a smooth and mild surface, with a due degree of stiffness.

Having been imbued with oil, the bougie is to be passed slowly and with gentleness, at the same time drawing forward the urethral canal. It ought never to be suffered to remain in longer than an hour, indeed half an hour will often be found long enough. The introduction should not be repeated oftener than every other day, and great care should be taken not to inflame the urethral membrane, lest such a result may delay the repetition for a week or more.

It is not uncommon for the use of the bougie, at the commencement, to occasion rigors, and some degree of ardor urinæ, but these effects will generally subside after it has been introduced several times.

If a swelling of the testicle supervene, the bougie must at once be discontinued; or if an abscess in the perineum take place, or in the cellular membrane, between the scrotum and thigh, with inflamed and tumefied absorbents, the bougie will no longer be admissible, and the patient must be kept quiet, and a poultice applied; sitting over the steam of hot water will also be of use in this case. A swelling of the prepuce to a considerable degree, and irritability of the bladder, are sometimes also produced by the use of bougies, which symptoms are to be treated with the ordinary remedies. These untoward results shew that the surgeon ought not to be in too great haste to cure a stricture.

When the bougie is left in the urethra, care should be taken to secure it lest it slip into the bladder. This sometimes happens, and when it does occur, the urethra is to be grasped firmly in perineo, and the penis retracted over the bougie.

Bougies at their distal ends should be rather conical, so as to act on the stricture, but if the contraction be so great as only to admit the passing of a very small bougie, it should terminate by a round point. Those which bend readily are more advantageous in some strictures, as they follow with the windings of the canal which have been produced by the disease.

Bougies must be regularly used, till the whole canal is open, and this may be accomplished in from six to twelve weeks; afterwards they must be introduced occasionally,—as once a fortnight, then once a month, and lastly, once in three months.

In spasmodic stricture, large bougies with obtuse ends will be most useful. When the meatus urinæ is contracted, the continued distension from a uniformly large bougie gives considerable pain, and may occasion hæmorrhage, it therefore is convenient in such a case to have the end of the bougie larger than its middle, and thus the constant distension of the contracted orifice will be avoided. Great inconvenience certainly results from a small meatus, but it will be better to be content with passing a bougie the size of the orifice, than to enlarge by incision.

A sound will sometimes pass where a bougie will not, but if much force be used with either instrument, retention of urine may be the result.

When by the passing of a bougie water is made to escape from the bladder, as in ordinary cases of retention, the bladder is not always able to evacuate itself wholly by the first effect, and then it becomes necessary, after waiting a quarter of an hour, to introduce it again, in order to produce another contraction.

When strictures occur at an inch and a half to two inches from the meatus, they are very troublesome, and it is in these that contraction of the meatus more commonly occurs.

Hæmorrhage rarely happens except from violence, or from the urethra contracting firmly upon the bougie. In some persons there is great tenderness of the urethra, so much so, that it cannot bear any plaster bougie, but finds no inconvenience from a metallic one; some, indeed, cannot bear wax composition in any form.

When a bougie is unskillfully managed, a false passage may be made through the urethra into the cellular membrane. This may be suspected when there is no alleviation from a long continued use of bougies.

If the stricture be so complete as not to admit the finest bougie, an endeavour must be made to induce suppuration of the part by covering the end of a large bougie with the Unguentum Hydrargyri Nitratis, and pressing it against the walls of the stricture.

When the stricture is complicated with spasm, great obstruction will probably be found at first, but after gently pressing for some time against it with the bougie, it will suddenly pass into the bladder, or the spasm may often be relieved by gently irritating the urethra at its extreme part. If the spasm should not yield to these simple means, it will be advisable to apply a blister to the perineum once or twice before the bougie is resumed.

In the purely spasmodic stricture, a slight touch of the caustic will speedily remove the spasm. If this be not used, a very large bougie, or a cold sound, or a blister to the perineum, may be employed with advantage.

In the treatment of stricture, too much ought not to be attempted at once, although some will bear the introduction every other day, others will only bear it every third day, and it will also be prudent not to

stretch the urethra too much at any one time. In this place Mr. Pearson relates the following interesting case:—"A patient in the Lock Hospital had a stricture two inches from the meatus, through which the smallest probe could not be passed; it seemed a complete *cul de sac*, and the urine could only be passed in small drops, and with great pain. I introduced a director, and laid open one inch of the urethra to the point where the director terminated. I then dissected down to the contracted part of the canal, and found it in a very indurated state; half an inch beyond the contraction the urethra was perfectly sound. A catheter was kept in the bladder, and the wound healed in a month, after which a bougie was passed every two days."

Fistula in Perineo.—When a person has laboured long under strictures, as the bladder meets with unnatural resistance, some portion of the urethra between the bladder and the stricture becomes dilated and forms a pouch for the urine. The urethra at length in some parts of the pouch gives way, and if the orifice be small the urine passes into the cellular substance by drops; a tumour is then formed, partly of pus and partly of urine, which does not always burst externally. The abscess may rupture as high as the buttocks, and even at the lower part of the abdomen. At other times there may be eight or ten different openings, and an immense quantity of pus discharged.

In every case of simple fistula in perineo, the employment of fomentations, poultices, and bougies, will generally be successful. The cure of the strictures will in most cases be the cure of the fistula.

When the stricture is so complete as not to leave the urethra open, it must be perforated; and as there is not always the advantage of having a staff, the operation is sometimes attended with difficulty.

In cases where several sinuses are found, they must be laid open, their edges scarified, and the indurated parts removed; it is absolutely necessary to touch the staff by a probe introduced through the incision, for merely laying open the integuments is not sufficient. Where no staff can be used the success of the operation is uncertain.

Sometimes fistula is caused by laceration from an accident. The patient makes water into the scrotum, and if a catheter is introduced into the urethra, it will pass through the laceration. In this case, first make a free incision into the perineum to remove the blood and urine; and when suppuration has taken place, introduce a soft bougie into the bladder. After the fistula has been laid open down to the urethra, a catheter is sometimes found so irritating, that it has been deemed advisable to lay it aside.

Where the parts are brought nearly into a healthy state, the flexible elastic catheter may be used; but if they are much diseased, the plan will be productive of little advantage. The object is to bring on suppuration

and healthy granulations, and when the catheter is introduced, it ought but seldom to be left in the bladder, unless the difficulty of introducing it is very great. Passing a bougie every day and keeping it in for a few minutes, will do more good; for an attempt to pass the catheter into the bladder will fail, unless the course of the urethra can be found; in all cases, therefore, it will be prudent first to give a fair trial to the bougie before the catheter is used.

There are some cases of stricture in which no instrument can be passed into the bladder: fistulæ, under such circumstances, are advantageous as a salutary effort of nature to save the life of the patient.

Enuresis — Involuntary Flux of Urine.—*Enuresis puerpera.*—When gangrene of the bladder is produced by long continued pressure, and a part of it sloughs, the unfortunate patient becomes subject to an involuntary discharge of urine. Sometimes the inner surface of the urethra is studded with minute calculi, which may be detected by introducing a catheter into the bladder and the finger into the vagina.

There is no particular remedy for this disease. Injections may be used to keep the vagina clean and wash away the lithic deposits. The patient may be rendered more comfortable by putting a portion of soft sponge into the orifice and withdrawing it three or four times a day.

Enuresis paralyticorum. This species arises from diminished power of the sphincter vesicæ, the detrusor power remaining unimpaired. In this case there are two modes of alleviation, one by an instrument called the "sphincter urethræ," which will be found very inconvenient; the other by a bladder being fixed to the penis, which most patients prefer.

Incontinence of urine will often be produced by stricture, especially when near the neck of the bladder; for if obstacles to the exit of the urine are long continued, the parts become overstretched and hardened, so that the sphincter of the bladder at length loses the power of contraction.

Enuresis infantum may arise from too great a mobility of the muscular fibres of the bladder, or a diminished power of its sphincter. In this disease, the indication is to increase the tone of the part. Taking large quantities of liquids should be avoided, and the remedies to be employed are the sulphate of zinc, cold bathing, and blisters to the perineum or sacrum. The tincture of cantharides may also be given advantageously, beginning with the dose of twenty drops for a child seven years old, and increasing it till strangury is produced; till this is effected little good will be experienced. The patient should feel a sense of heat and uneasiness, and frequent desire to make water. If the pain be violent the dose may be lessened, and continued in such a quantity as can be borne without inconvenience. Electricity is sometimes of use.

I have now brought these papers to a close. One more might have been added on syphiloid disease, but as I can discover nothing in the manuscript before me that could throw any light on this morbid complication, either in a pathological or therapeutic point of view, (for, in Mr. Pearson's time, the curative efficacy of the iodide of potassium was not known,) I have deemed it best to omit it, and I am the more justified in doing so after the recent publication of M. Ricord's valuable lectures on syphilitic disease in the pages of the *Lancet*, which comprise all that is known on this subject.

I am but too conscious of the very imperfect character of the notes which have been so indulgently recorded in this Journal, and I sincerely hope, if any autograph of the late Mr. Pearson on lues remain in the possession of his relatives, it will one day be given in a complete form to the public. Such a publication could not fail to become a standard work on this important subject, and at the same time it would be carrying out his declared intention.

In justice to the high professional reputation of the late Mr. Pearson, I think it right to add that he was the first to describe the symptoms and treatment of those forms of disease which he has denominated "erethismus" and "eczema mercuriale," and that he was also the first to recommend "free exposure to air" in cases of excessive salivation.

It might probably appear, *primâ facie*, that his mercurial treatment was unnecessarily severe; but when we find M. Ricord (the most experienced surgeon in lues of the present day,) stating it as his opinion that the syphilitic diathesis can hardly be eradicated, we ought not to be surprised that Mr. Pearson should have insisted on a decided and protracted adhibition of mercury as the only antidote to the true syphilitic poison.

Southampton, December 13, 1848.

A CASE OF INCOMPLETE REDUCTION "EN MASSE" OF AN INGUINAL RUPTURE;

WITH THE SUBSEQUENT TREATMENT, AND APPEARANCES OF THE PARTS POST MORTEM.

By JAMES REID, Esq.,

Surgeon to the Kent and Canterbury Hospital.

The reduction of a hernia in a mass with its investing peritoneal covering, by the efforts used in applying the taxis, and the appropriate mode of treatment, has, until the last few years, rested almost entirely upon the authority of foreign surgeons.

Mr. Luke was the first, I believe, in this country, to make the occurrence the subject of a particular treatise.* Since his excellent paper, founded on the

* Previously to this, cases of the accident had been noticed by Sir C. Bell, Messrs. Green and Callaway, and Mr. Bransby Cooper; but Mr. Luke was the first British surgeon who deduced the line of practice to be adopted.