of the efficacy of the treatment by lemon-juice, and as I understood that in the former attack this young lady had suffered from pericardial inflammation, I abstracted blood to the amount of sixteen ounces. The blood was buffed and cupped. Colchicum was also ordered with alkalies. Very little amendment followed these measures. The pain was agonising, there was no sleep at night, and the rheumatic pains became complicated with other pains evidently of an hysterical and neuralgic character. Various remedies were successively adopted: solution of veratria, tincture of aconite, and extract of belladonna were applied,—sometimes separately, sometimes together,—to the affected joints; and opium was given internally in large doses. After nearly two months of intense suffering, this young lady became sufficiently recovered to be sent into the country; but in September, the disease assumed the chronic form, accompanied by neuralgia. This was treated by quinine, iodide of potassium, bicarbonate of potash, and vegetable tonics, alternated by iron. She eventually recovered; and although I do not positively assert that the venesection did actual harm, I think if such a case were again to occur to me, I would not practise it; but, if I were sure of the absence of cardiac complication, would treat the disease with lemon-juice and opium.

(To be continued.)

8, Torrington Square, January 1852.

ON VASCULAR TUMOUR, AND MORBID VASCULARITY OF THE FEMALE URETHRA.

By H. B. NORMAN, Esq., F.R.C.S. Eng., Surgeon to the North London Infirmary for Diseases of the Ear; and to the St. Marylebone General Dispensary.

IN the last number of the LONDON JOURNAL OF MEDICINE, I have read with some surprise an article by Dr. Gream, on what that gentleman has newly named *Morbid Vascularity of the Lining Membrane of the Urethra*, in distinction to the title of Vascular Tumour, heretofore applied to the disease of which he treats, and generally adopted since Sir Charles Clarke wrote his work on the *Diseases of Women Attended with Discharges*.

I find no fault with the author for this change of nomenclature, which is to some extent justified by the facts of the case, nor with any of his descriptions of the appearances and symptoms to which this diseased condition of the urinary canal gives rise, although perhaps they fall short, in completeness of detail, of what has been elsewhere written by others.

But Dr. Gream is in error in supposing that, with the exception of Sir Charles Clarke, Drs. Ashwell, and Meigs, whom he quotes, no author has written anything material on the subject. In the *Edinburgh Monthly Journal of Medical Science*, for June 1849, there is a paper by myself entering very fully into this matter, amply illus-

trated by cases derived from various authorities and from my own practice, and containing perhaps a more circumstantial and detailed account of the varieties of the disease in question than is elsewhere to be met with. The result of my inquiries on this subject was first communicated to the Harveian Society in the form of a paper read at one of its ordinary meetings, and at a subsequent period, with a little recasting, was published in the Journal above named. In that paper it will be found that I have derived information from the following works and authors:—Sharp: *Crit. Inq. into the Present State of Surgery*. London: 1750. Broomfield: *Chir. Obs., etc.* Warner: *Reports and Cases in Surgery*. David D. Davis: *Obstet. Med.* Burns: *Principles of Midwifery, etc.* Sir Charles M. Clarke: *Diseases of Women, etc.: Med. Facts and Observ.*, vol. iii, p. 26. Case by Mr. Hughes: *Lond. Med. Journal*, vol. vii, p. 160. Case by Mr. Jenner. Brodie, Sir B.: *Lectures on Diseases of the Urin. Organs*. Ashwell, T. S. Lee, Warren, Boivin, and Dugés,—and that I have referred to other sources of information which were not known to me until after preparing for publication. I doubt not that there are yet many which I have not explored, as there are others not named which I have examined. The summing up of my paper was as follows:—

“From what has now been advanced it will be seen—

“1. That the urinary passage of the female is, in its whole extent, from the external orifice to its termination in the bladder, liable to become the seat of excrescences; and that though the orifice is the most frequent seat of these growths, they are not very uncommon in the interior of the canal.

“2. Though entitled to one common appellation from their vascularity, they differ much in some other respects. Thus, in size, they may vary from a simple large granulation to a tumour as large as a date, or, as in the case related by Mr. Warner (Case ix), as a turkey's egg; in consistence, from something scarcely exceeding the solidity of jelly, to a considerable degree of firmness; in external surface, they may be perfectly smooth, or granular; in form, flattened and sessile, rounded, and growing irregularly from the whole margin of the meatus, or pediculated and pendulous: sensitive to the highest degree, or, as in one instance quoted (Case x), not even sensible. Their sensibility bears no relation to their size, unless it be in the inverse ratio; the smallest excrescence certainly gives equal pain and distress with the largest.

“3. Little has been made out in relation to the intimate structure of these growths. Boivin and Dugés call them cellulo-vascular. Mr. T. S. Lee says they ‘are entirely made up of vessels, and their connecting cellular tissue.’ Warner says, one of his, which he examined, ‘consisted of a number of fibres’, and the excrescences removed by Dr. Davis, ‘examined in water, showed a fibrous structure.’ The following is Mr. Quekett's description of the excrescence (Case v), which he has kindly examined for me. ‘The specimen was of an oval figure, about two lines in length in its long diameter. It was white, and had numerous small confervoid filaments attached to its outer surface, from having been some time in water. A thin slice from the external surface, when examined microscopically with a power of 200 linear, exhibited the same structure as ordinary cuticle;

the epithelium of the outermost layer being composed of flattened scales, whilst the cut surface exhibited the same kind of cells, more condensed, and firmly adherent together; a vertical section through the mass showed several papillæ of various sizes, which were very vascular, and surrounded by an investment of cuticle, which, with the papillæ, made up the entire mass of growth; at the part where the papillæ were situated, the growth was smaller than at the opposite extremity, as though it had been attached by a constricted neck or pedicle. The papillæ, no doubt, were largely supplied with nerves, as well as blood-vessels, but their presence could not be detected by the microscope. The growth may be said, then, to consist of hypertrophied papillæ, invested with a thick layer of cuticle, which projects from the greatest surface of the mucous membrane, in a wart-like form.' This connection with the papillæ will serve to explain the extreme sensibility generally possessed by these tumours.

"4. They are non-malignant, though, according to Boivin and Dugès, 'they may doubtless become cancerous.'

"5. They have for the most part an extreme tendency to be reproduced, when cut off or otherwise removed; but this is hardly a constant character, and may generally be counteracted.

"6. They are common to the married and unmarried, and to all ages, from infancy to old age; but are most frequent, probably, during the period of activity of the generative system.

"7. They have been ascribed to syphilis, excessive venery, and masturbation, but I cannot discover any good ground for admitting either of these causes, believing that they are causes only in the light of being occasionally coincident with effects.

"8. The most constant symptom of the disease is pain in the urethra, greatly augmented during micturition, which is sometimes suppressed by dread, and sometimes excessively frequent from the extension of the irritation to the bladder; augmented, also, by all movements of the vulva, by coition, and during the menstrual flux. A muco-purulent discharge from the vagina accompanies the growth, and there are occasionally severe sympathetic pains in the loins, pelvis, hips, and inside of the thighs, and a discharge of blood, leading to the idea that the case is one of calculus of the bladder. To prevent this mistake, which has been often made, whenever the more common symptoms are present, and *not accounted for by a morbid condition of the urine*, careful examination of the vulva should be made before an opinion is given.

"9. The external characteristics of these growths are sufficiently clear to prevent their being confounded with other swellings,—as verucæ, prolapsus of the bladder, eversion of the mucous membrane of the urethra, or varicose tumour of this part, and still more with prolapsus uteri; a mistake which, in one instance, we see has nevertheless happened (Case vi).

"10. The treatment required is strictly local, and consists of such means as entirely destroy the growths, and are most likely to prevent reproduction. These are cauterisation, caustics, astringent lotions, excision, ligature, and pressure by bougies.

"They are all applicable in different cases. If the growth is single or double, and not attached by a very broad base, it may be removed either by excision or ligature. The former has, perhaps, the most

numerous advocates, and among them Sir B. Brodie and Dr. Ashwell, and was practised in several of the cases cited in this paper. To the latter I give a decided preference, along with Sir Charles Clarke, in consequence of the serious hæmorrhage that often follows excision. In either case, a powerful caustic should be applied to the point from which the growth has been removed, to prevent its reproduction.

"The actual cautery or caustics are only applicable primarily to the very small excrescences near the orifice, and to those which answer to the description of Dr. Ashwell, *i. e.*, having the appearance of several raised coalesced granulations, or two or more isolated ones; as a secondary means, they are applicable, as before mentioned, after excision or ligature. The more powerful the caustic, if proper care be used to prevent its spreading, the less suffering it produces, and the more quickly it effects its purpose. Potass, nitric acid, and permittate of mercury, are the best. Nitrate of silver gives excessive pain, and is slow and inefficient.

"Bougies, like caustics, have a primary and a secondary use. Primarily, they form the only efficient means of treating those growths which affect, in a general manner, the interior of the urethra, and their use is well illustrated in Dr. Davis's case (Case x); secondarily, they are, perhaps, when regularly introduced, and worn for some considerable time, as useful as caustics, if not more so, in preventing reproduction of a tumour that has been removed. The pain which they occasion in their primary use, must be met by anodyne local applications, and now-a-days anæsthetics may be brought into use for this purpose. In their use, as secondary means, they do not occasion suffering.

"By one or all these means, this most distressing affection may, in general, be effectually cured; even the most formidable cases, as we have seen, may yield to bold and persevering endeavours, as illustrated in cases ix and x. The latter does great credit to the ingenuity and perseverance of the physician who records it; and the former to the ability with which an important operation was devised and carried out. The successful result, in both cases, leads me to hope that some fungous tumours of the bladder, especially in the female, generally supposed to be beyond the reach of medicine or surgery, may yet be made amenable to the latter, at least. The ready distensibility of the female urethra admits of the examination of the bladder by the finger without difficulty, and thus can be ascertained the size, form, and position of any foreign body in its cavity; and the question of treatment can then be decided, whether, as in Mr. Warner's case, the urethra should be divided, and a ligature be placed around the growth, or it should be excised; or, as in Dr. Davis's, some kind of bougie should be used; or, finally, it should be left to take its course. Mr. Warren, it appears, contemplated the excision of a fungous tumour of the bladder, in a case in which he was consulted, and he proposed to himself one of two plans: namely, either 'to make an incision through the vagina, and cut away the diseased portion of the bladder; or to cut open the urethra on its side, and, introducing a finger, to examine the tumour, to seize it with a hook, draw it out as much as possible, and excise it.' As he could find no precedent for either method, and dreaded from the one an incurable fistula, and from the other effusion of urine into the cellular membrane about the

bladder, he declined urging the operation. The patient, a delicate lady, aged 50, lingered about eight months, and dying in the country, no examination of the body was made. To his first plan, the objection suggested is valid; to the second, I think not; and probably had he been acquainted with Mr. Warner's case, he might have embodied his idea in practice, it may be, unsuccessfully; but the subject, I think, merits attention. From any known treatment of such cases, there is no hope of cure, and but little, if any, of benefit; they end almost uniformly fatally, either from the effects of hæmorrhage, as, as Mr. Warren suggests, 'from consequent derangement of the stomach and intestines'."

In the preceding summary, I think I have stated pretty fully almost all that is known regarding this disease, and that there is but little more to be added to it; although numerous cases have come again under my own observation, and I have been favoured by friends with the particulars of others. I am convinced, however, that there is not such a general acquaintance with this disease in the profession as there ought to be; and, as a consequence of this, that much suffering is endured by many women, for long periods of time, which they might, were it otherwise, be spared.

For example, whilst my former paper was in press, Mr. Hillman invited me to be present with him, and to assist him in operating on a young married woman, who had suffered *for eighteen months severely* from the ordinary symptoms of this malady, and had, during that time, gone through the painful process of childbearing, augmented in severity by the presence of this disease in the urethra, which had never been discovered, and consequently had not been relieved by the various medicines which had been prescribed for her, to "cure her of the gravel". In this case, there were one or two excrescences within and around the orifice of the meatus urinarius, and several *spots* of similar disease on the membrane of the vestibule. The former were excised, and potass applied to their bases, to do which effectually, it was deemed necessary to dilate the urethra; the latter were treated simply by the application of potass. The treatment has proved perfectly successful.

In that same summer, my friend Dr. Hearne, of Southampton, communicated to me the details of a case, in which he had successfully removed an excrescence of this sort from the urethra of a very respectable woman, the wife of a tradesman, who had suffered *eight years, unexamined and unrelieved*, though she had repeatedly had professional advice, and used various local applications and internal medicines. In this case, the excrescence, which was small and pediculated, was removed by scissors, and the potass applied to its base. The relief was immediate; and there had been no return of suffering when I met Dr. Hearne last, about a month ago.

Last autumn, I again assisted my friend Mr. Hillman in extirpating a small vascular sensitive tumour from the urethra of a married female, past the middle age, who had suffered *several years* from this disease, and had repeatedly been under medical treatment on account of it; but *the real cause of her sufferings* had never been discovered until she consulted Mr. Hillman. I might cite other instances, but the foregoing will perhaps be deemed sufficient.

The *diagnosis* of this disease is sometimes rendered difficult by the following circumstances, unless the parts be inspected:

1. That the tumour or vascular spot is in some cases not sensitive, except when exposed to unusual irritation by exercise, or the passage over it of acrid secretions.
2. That in others, where the disease is generally painful, its sensibility may be for a time suspended by the use of a diuretic, such as gin; and
3. That other causes may give rise to symptoms bearing a very close resemblance to those generally present with the vascular tumour.

Thus, in reference to the first head, Mrs. B., a middle-aged married woman, mother of a grown-up family, whose ordinary health was usually good, but who had recently been suffering much in her urinary organs, was on that account transferred to my care at the St. Marylebone Dispensary, about two years ago, by my colleague Dr. Chorley. Her general symptoms were those of slight fever, accompanying some gastric derangement—quickened pulse, dry furred tongue, loss of appetite, etc.; but her chief complaint was of great pain in the passage during and after making water, and great tenderness of the genital organs, which caused every posture, and the sitting posture especially, to be painful. There was no blood in the water, which could be held for several hours; pain in the back and loins, and general uneasiness, were present. When I first saw this patient, I did not deem her symptoms conclusive; but they seemed to indicate dysuria from an acrid state of the urine. I accordingly prescribed salines and alterative aperients, with suitable regimen and diet. In a few days, the dysuria, etc., ceased, and she felt otherwise well. Shortly after, she again had a return both of the general and local symptoms, all of which again yielded very readily to the same general treatment; so that she could sit, walk, or lie in any posture, and make water easily. On this second recovery, I obtained permission to examine the vulva, and found in the orifice of the urethra a small florid excrescence, not much larger than a grain of rice, yet *very tender* on being touched, and precisely such as is often sufficient to make a woman's life miserable, and to render matrimonial intercourse intolerable. In the present instance, its presence was only inconvenient during a temporary state of pyrexia. The state of the urine, I should say, was not accurately determined during the period of suffering; but it was said to be high coloured, and thick on cooling.

The condition of the urine was more carefully observed in the following case, for the narrative of which I am indebted to my friend Dr. Quain; and it serves well to illustrate this part of my subject:

"A lady between fifty and sixty years of age, whom I had some time before treated for a slight eczematous eruption at the bend of the elbow, and for dyspepsia, requested me to see her last Autumn (1850). I found her suffering from apparently great irritability of the bladder. She complained of a distressing heat and bearing down, and an urgent and frequent desire to pass water. She had not observed a discharge of any kind, and attributed her sufferings to over-fatigue, in taking long walks, where she had been staying in the country on a visit, followed by a journey, the day before I saw her, in a railway carriage, which rolled to an unusual extent. Her urine was strongly acid, scanty, and deposited much lithates; and there was no tenderness or other circumstance worth naming. I prescribed a warm hip-bath, an alkaline mixture, with mucilaginous drinks, and some mild aperients. Next day she was better, freer from distress; and she then mentioned

that she thought her suffering must be in some measure due to something for which she had had advice three or four years before, and which she described as being situated 'at the opening of the passage'. She said it had been cured by Dr. Pardoe, by two applications of caustic and some saline medicines, and had never since troubled her. She was led to form this opinion, from observing a slight trace of discharge or stain on a handkerchief, which she showed me. It was then dry, about the size of a fourpenny-piece, and apparently composed of mucus.

"On examination, I found the orifice of the urethra at the verge surrounded almost entirely by a ring of about one-eighth of an inch across, of a deep red villous-looking tissue. I could not say that there was any distinct or separate elevation, like a growth or wart, and I can compare it rather to the pile of velvet. It seemed as if the membrane had become unusually villous at this point. I applied nitrate of silver, which gave considerable pain; I directed her to apply a sponge squeezed out of hot water, and to continue the medicine. Next day she was greatly better, almost free from suffering. The urine had become *neutral and abundant*, and on the following day she was able to leave town again. On the return of this lady to town some months subsequently, she told me that she had experienced very little inconvenience from her journey, and had since continued well."

In considering the immediate cause of the suffering in this case, one cannot help connecting it with the concentrated and acid condition of the urine irritating the morbidly sensitive orifice of the urethra. It is not improbable that the latter is a more or less permanent condition, but that the inconvenience, if any, is not such as to call for interference except when the state of the urine is such as to produce the irritating effects felt on this occasion.

The second source of difficulty in relation to diagnosis would be noticed in such a case as the following. It is that of a young woman, of light active figure, fair complexion, and healthy aspect, who called on me at the request of my friend Dr. Hare, the summer before last. She was a domestic servant in a gentleman's family, then on her way through London with the family from the south of England into Yorkshire. She had been the subject of this morbid vascularity and sensibility of the urethra for some years, had been operated upon by excision, by caustics, and by bougies; and at the time I saw her was affected with secondary production of the disease, in the form of small villous elevations around the orifice of the urethra and upon the nymphæ. The local sufferings occasioned by these were such as at times, and especially during the menstrual period, to render her *quite incapable of exertion*, and at other times to make it needful for her to resort to the stimuli of porter or gin. The latter acted powerfully on her kidneys, and *always procured her complete temporary immunity from pain*. I had no opportunity of doing anything for this patient, as she was to leave town next day. Profiting, however, by the hint which the effect of the gin gave me, I gave her a prescription for some alkaline diuretic, which I thought would be less liable to abuse than gin, and with a few general directions as to her diet, etc., I advised her as soon as possible to consult a medical man in the country, and to refer him to me if he wished for any further information relative to the treatment of the case.

I have said that in such a case difficulty of diagnosis would occur, meaning thereby, if the patient herself were ignorant of her real malady: in the present instance it occasioned no difficulty, the patient being cognizant of the state of her urethra, and expecting to be examined.

On the third source of difficulty I need not dwell. All who are at all conversant with the diseases of the urinary organs, must be aware how very similar may be the symptoms occasioned by various actual causes. In reference to the disease here treated of, they point emphatically to the duty of obtaining, if possible, an ocular inspection of the parts to which the suffering is referred. I do not mean to urge that this step should always be taken, and at once, in every bad case of dysuria; this is quite unnecessary. In many instances, the history of the case clearly points to the cause of suffering, which is not an organic disease. But where such sufferings as usually attend this complaint are long-continued, severe, and obstinate, or apt to recur upon slight causes, or to be increased by trivial provocation, the duty seems to me clear.

In the *treatment* of this affection, I fully admit the difficulty which Dr. Gream states there is sometimes found in the use of the ligature, and in excision of the morbid growth or tissue; in some cases, attempts at either of these would be fruitless, and in such the method of applying the nitric acid recommended by that gentleman is entitled to general adoption; further precaution being at the same time used, either by keeping a sponge, moistened with water or a weak alkaline solution, closely applied to the parts immediately contiguous to those to which the acid is to be applied, or by well smearing them with oil before applying the acid, no injury from the acid need occur. The former plan I generally adopt; the latter is frequently made use of in the treatment of certain forms of piles by this powerful agent, a mode of treatment which I should think commonly known and adopted by surgeons rather than peculiar to any one. The frequent occurrence of considerable hæmorrhage after excision is undesirable, and alarming to a patient, and confirms me in my preference for the ligature. I have rarely practised excision, and never been troubled with subsequent hæmorrhage; but the cases cited in my former paper, one referred to in the present communication, and another recently related to me by Mr. Prance of Maidstone, in a letter on this subject, prove most conclusively that it is a consequence not to be overlooked.

I have never known any other serious mischief accrue from the adoption of any of the plans of treatment recommended, except in one instance, in which a young woman, a patient of my friend Dr. Aldis, had a very severe and alarming attack of peritonitis after, and as a consequence, of the removal of a tumour, of the size of a cherry, by ligature. Happily, however, she recovered from both her maladies.

In other cases, temporary dysuria, incontinence or retention of urine, and a certain amount of inflammation of the external organs with muco-purulent discharge, may occur; but these yield to the influence of time and proper treatment, and are not worth naming, if relief is obtained to the real sufferings with which this disease is so commonly attended.

3, Duchess-street, Jan. 14th, 1852.