SUBSTANCE OF
Clinical Remarks
ON A RECENT
CASE OF LITHOTOMY

At University College Hospital,

IN WHICH THE OPERATION WAS PERFORMED FOR THE PURPOSE
OF REMOVING A PIECE OF BONE FROM THE BLADDER.

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THE case before us is so unusual that I shall briefly recapitulate the history, and illustrate it by referring to one other very similar case on which I operated in this ward some years since.

You will remember that I performed the lateral operation on this lad three or four weeks ago, and you see that he is now making a good but rather slow recovery. He was sent to me by Mr. H. Evans, of Hampstead, and was admitted here on the 14th of February last.

W. D—, aged fifteen, a weak-looking lad, much reduced by long and severe sufferings, from symptoms of vesical calculus of at least three years' standing. I sounded him on the 23rd, having been prevented from making my usual visit sooner; and, at once striking a large stone, observed that I would next introduce a lithotrite to measure it, and ascertain whether it might possibly be within the compass of lithotrity, as he had a good urethra for his age. I did so, and, grasping it, remarked to the students around that it was unlike "in feel" to stone, that in turning it over I felt a portion projecting, and would remove a little bit in the blades of the lithotrite to see what it was composed of. I did so, and withdrew the instrument with a small piece of bone between the blades. It was handed round, and we all saw that there was no question as to its being bone. I then learned the following history, with which I had previously been unacquainted. It was carefully taken by Mr. Lang, the ward clerk, whose words I now quote:—

"Four years ago the lad was run over by a cart, a wheel of which passed over his pelvis on a level with the superior spine of the ilium. Considerable bleeding from the urethra followed, and for more than a month after the injury he was unable to pass water by his own efforts, and a catheter was used to draw it off. Soon afterwards he felt pain during and after voiding urine, which was occasionally mixed with blood. During three years past he has also occasionally passed 'grit.' Once, about three years ago, he says he passed a piece of bone."

The usual symptoms of stone were present, but not in a very marked degree. I then determined, on account of the size of the foreign body, the irregularity of its form, and the certainty that it was at all events in part composed of bone, to perform lithotomy, and eventually decided on the lateral operation, after considering the claims of the high operation, which could not be overlooked in a case of this kind.

On the 6th of March I performed the operation in the usual manner, making the incisions rather free, and removed several loose phosphatic masses, and then a larger one, measuring about an inch and a half in length, which proved to be bone highly encrusted with phosphatic deposit. (See Fig. 1.)

I need make no detailed remarks on his progress, which has been an uninterrupted convalescence, except on one occasion by a large deposit of phosphates on the surface of the wound, which was removed and has not reappeared. He now passes water mainly by the urethra, and a small quantity only continues to flow through the wound, which has not at present entirely healed.

Now it must appear to you, as it really is, a very remarkable circumstance that a portion of bone detached by fracture from the pelvis should find its way into the bladder, become the nucleus of a stone, and four years after be removed by lithotomy. But, as I said before, the process

which Nature instituted here may be illustrated by another case, equally remarkable, which I will briefly relate.

During June, 1865, I found, at one of my hospital visits in this very ward, a man aged forty, sent to me by the late

FIG. 1.

a, The piece of bone withdrawn by the lithotrite at the examination. b, The bone surrounded by phosphatic matter removed by lithotomy. A number of large fragments of phosphatic calculus were also removed, but are not represented. The above are shown of the actual size.

Dr. R. Uvedale West, of Alford, Lincolnshire. I sounded him, and then, as usual, introduced the lithotrite to ascertain the precise size of the calculus; and, having done so, remarked to the bystanders, as in this case, that the mass did not feel like stone, and that I would withdraw a small portion as a specimen. I did so, and at once produced a small piece of bone for their examination. But in this case the mass was comparatively small, and I resolved to perform lithotrity. I did so on June 27th and 30th, crushing bony matter and phosphatic matter together; and on July 3rd I removed a portion of bone with the forceps which had become impacted in the urethra. On the 15th of July he was discharged perfectly cured. The bony portions removed are shown in Fig. 2, and are drawn from the original now in my possession. One of the smaller pieces was removed by the lithotrite; the largest is that which became impacted as described. As before, the loose phosphatic matter is not represented.

FIG. 2.

Now what was the history in this case? Of course, as soon as I had withdrawn the bit of bone at the first examination I cross-examined him as to his history, and learned that during seventeen years he had had several attacks of pain in the right hip-joint, followed by abscess on three occasions. The last occurred two years before, soon after which he had symptoms of stone in the bladder. On stripping him, there were the cicatrices, and there also was the resulting deformity on the right side. At that time I presented this case, believing it to be unique, to the Medico-Chirurgical Society, with the bone and phosphatic fragments removed.* I stated that the origin of the stone had, without doubt, been a portion of necrosed bone from the os innominatum, which, instead of being extruded externally, in the usual manner, had found its way, by slow ulcerative absorption of the tissues which lay between it and the bladder, into the cavity of that organ. The bone here soon acquired a phosphatic coating, and produced the symptoms which led to its detection and removal.

In the case before us no doubt the same process took place. I do not imagine for an instant that a portion of bone was forced by mechanical violence into the bladder at the time of the accident. The organ was injured at the moment of fracture—as we know by the hæmaturia, and by the loss of ability to expel urine by the natural efforts,—and almost certainly by a portion of bone which became detached, but which probably was only partially driven through the coats of the bladder at first. Subsequently, no

* Vide THE LANCET, March 3rd, 1866.

doubt, it became free in the cavity and acquired a coating of phosphates, and produced the symptoms of a foreign body there.

I shall briefly refer to the only cases I know on record in which bone is the nucleus of a calculus. The first is in the museum of the Royal College of Surgeons, London—a large phosphatic calculus removed from the female bladder; in the centre of this formation is a piece of bone, but no history whatever of the specimen exists. The second is to be found in the American "Report of Surgical Cases in the Army," Circular No. 3, page 259, in which lithotomy was performed for a large phosphatic calculus in 1865; in its centre was found a small piece of bone; and, as the man was wounded in 1862 at the battle of M'Dowell by a ball which passed through his pelvis, shattering the horizontal ramus of the left pubic bone, there can be no doubt as to the nucleus having resulted from the gunshot injury.

I have only one more remark to make relative to the two interesting and instructive cases which form the subject of our remarks to-day. It is to recommend you always—in accordance with the rule I have so constantly given and insisted on when lecturing on stone in the bladder—to make a careful and accurate diagnosis of the case, before entering upon any operative procedure, in every case of stone. For this purpose a rather small and light flat-bladed lithotrite is one of the most useful instruments. Were there no such process as lithotrity, the lithotrite would still be an invaluable instrument in this respect. By its means you see how easy a thing it is to determine the size, form, and composition of a foreign body before deciding the question, often so momentous, as to how it must be removed. For this purpose the old, clumsy, heavy instrument is wholly inadequate. Extreme lightness and facility for being moved are the essential requisites for such a tool; and the more I see of calculous disease, the more I am impressed with the value of such a one for the purpose of acquiring an exact notion of the body on which I am called upon to operate before I decide on the method to be adopted.

ABSTRACT OF

Two Lectures

ON

THE DIAGNOSIS OF PELVIC SWELLINGS.

Delivered at the Hospital for Women.

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AFTER a few introductory remarks on diagnosis, arising out of Hippocrates' aphorism, "the coming-to-a-conclusion is difficult," the lecturer sketched the method he considered the best for eliciting the correct history of a case, and then, going at once to the subject, said: "I make no apology for using the word 'swelling' in preference to the ordinary Latin word 'tumor.' My reason for doing so is this:—In some way or other the word *tumour*, while including all the signification of swelling, has added to it in the public mind the idea, not merely of the swelling of a part, but of a growth more or less separate or separable, and generally of a dangerous character. This idea of an entity independent of surrounding structures is often fixed so indelibly in the patient's mind that the hope of a remedy prompts the frequent question, 'Can I have it dispersed, or must it be cut out?' It seems so important to do away entirely with this erroneous impression from the minds, not only of our patients, but also of ourselves, that I have used this word 'swelling' as conveying a meaning more akin to the truth. With regard to the limitation 'pelvic,' by it I would confine our present investigation to those swellings that lie wholly, or have their greater part situate, within the boundaries of the pelvis."

The exercise of the various senses as means of diagnosis was then fully explained, and the various methods usefully tabulated; but there is only room here for their partial

enumeration. The sense of *touch* was divided into *immediate* and *intermediate*. Under the head of immediate touch were placed: (1) The simple digital touch, (a) of the vagina, (b) of the rectum; (2) the "double touch"—bi-digital touch, or recto-vaginal examination; (3) the conjoined examination; and (4) abdominal palpation. Intermediate touch was explained to be that by the sound, whether uterine or vesical, and also by the thermometer. The sense of sight is exercised usually through specula of various devices directly on the object, or on fluids withdrawn by fine trocars, or by the microscope. Hearing is called into play in immediate or intermediate auscultation, and in discriminating between the often slight variety of note or pitch elicited from immediate or intermediate percussion. In speaking of immediate touch, Dr. Heywood Smith said: "It may here be remarked that, as a rule, the sensation of touch, as perceived by an internal examination, is such as to convey to our minds the presence of a body larger than really exists. The following explanation is submitted as not altogether improbable:—The apprehension by the mind of degrees of comparison stands in relation to brain-work as given out in nervous energy. Now our ordinary measurements by the sight need but little movement of the eyes; also, on calling in touch to our aid, an object is usually grasped by several fingers at once, necessitating but little motion; but, in internal examination, it is necessary that the point of the finger should journey round a tumour in order to comprehend it, and the mind, taking cognisance of the size by the amount of motion required, builds up an idea of comparative greatness so much larger in proportion to the nervous energy expended in acquiring the information."

The lecturer then, before dividing the subject-matter under its various heads, made some remarks on the morals of vaginal examinations, in the course of which he said: "If a patient applied to a physician for diseases of the chest, he would be deemed to have gone into the case but superficially unless he had made a most thorough examination by means of every appliance that could be brought to bear on the subject. In the same way, and similarly as a matter of course, the pelvis should be examined where there are indications of its necessity. The indelicacy lies not in the examination itself, but in making much, or indeed anything, of it; the necessity arises out of the very nature of the case, and it should never be introduced with a preface, as if it were out of the usual order of things, but undertaken in the ordinary investigation of the case with the same unaffected ease with which a sight of the tongue would be requested."

The system of classification chosen as that considered the best under which to arrange the large amount of material was the anatomical; and the first main division was into (1) normal and (2) abnormal pelvic swellings.

1. The normal pelvic swellings may be thus enumerated:—(a) the bladder full; (b) the uterus unimpregnated; (c) the uterus impregnated; and (d) the rectum loaded with fæces.

2. Abnormal pelvic swellings were considered in relation to the various organs and tissues involved, and embraced swellings connected with the bladder, the uterus (fundus and cervix), the ovaries, the oviducts, the broad ligaments, the vagina, the rectum, and, finally, any swelling within the pelvis that had not been included in the above list.

Among swellings connected with the bladder were mentioned and illustrated calculus, abscess, cancer, cystocele, foreign bodies, &c. In diseases of the uterus the cervix uteri is the portion which most often shows itself as a pelvic swelling, especially in its state of cancer of various forms, chronic inflammation with deposit, engorgement with elongation of the cervix uteri, polypi of various kinds, and the occasional malformation of a double uterus. Cancer of the cervix uteri in its early stage has, in the form of scirrhus, to be differentiated from indurated (benignant) deposit in the labia uteri, and in the form of epithelioma to be separated from rodent ulcer, syphilis, and granular inflammation seated upon a hard basis in the cervix.

For the diagnosis of these several maladies, it is not merely requisite that the different morbid appearances should be most carefully observed, but also that the histories of the cases should be most accurately gone into and traced, so as, if possible, to make the diagnosis tolerably certain by the very history, and almost independently of any examination. The cases of induration of the cervix