ORIGINAL COMMUNICATIONS.

CLINICAL LECTURES ON SURGERY NOW IN
COURSE OF DELIVERY AT QUEEN'S
COLLEGE, BIRMINGHAM.

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[Reported by James Jaffray, Esq., and corrected by the Author.]

LECTURE I.

ON RETENTION OF URINE, AND THE EVILS AND ADVANTAGES OF OPERATIVE MEASURES TO BE ADOPTED FOR ITS RELIEF.

GENTLEMEN,—I conceive it to be admitted, without question, that it is justifiable and proper to puncture the bladder for the discharge of its contents, when its distension by urine has arrived at such an extent as to become unbearable to the patient, when rupture of the bladder appears imminent from its over distension, and when discharge of urine from the urethra, and the introduction of instruments by this passage is impossible; and when other means, such as bleeding, the warm bath, opiates, chloroform, and other remedies, have been tried and failed.

Four modes of opening the bladder have been proposed, and performed by surgeons at different times for this purpose. 1. Through the perinæum; the incision made pretty much in the same direction as in the lateral operation for lithotomy, but no instrument being introduced through the urethra, the bladder is punctured laterally beyond the base of the prostate. 2. Above the pubes. 3. Through the rectum. 4. By passing an instrument down to the stricture; cutting upon its point and then attempting to pass a second instrument through the perineal wound into the bladder, and ultimately through the whole urethral canal, a proceeding that may be most commonly accomplished.

It is to be recollected that, in most cases, the operation of puncturing the bladder is only to relieve immediate and distressing symptoms; and it does not immediately bear at all upon the question of permanent relief or cure to the disease (most commonly stricture) which produced the retention. This point is very important; because in weighing the comparative merits of each operation, we should bear in mind its influence on the future treatment of the primitive disease which produced the retention. The hint I have just thrown out is evidently of great moment, viz., the effect of the operation on the primitive disease.

I have excluded the operation for relief by forced catheterism; because it is a painful, dangerous, and uncertain operation, and one which should be excluded from the domain of surgery altogether. Even when obstruction is seated in the prostatic portion of the urethra, the catheter is much more likely to enter the bladder through the body of the prostate itself than by the urethra; or slipping behind the prostate, to pass between it and the rectum.

I exclude again from consideration the first operation through the perinæum, where the first incisions are similar to those in the lateral operation of lithotomy, the second part being completed by the trocar pushed into the bladder at a point that must be uncertain, because the relation of the bladder must constantly vary with the surface, owing to the depth of the perinæum, the development of the pelvic bones, and the degree of distension of this viscus. These variations, according to the measurements of Dupuytren, given in his thesis for the Chair of Operative Surgery, vary from one inch and some lines to four inches; the ordinary depth of the bladder from the surface of the perinæum being about two inches and a-half.

I have been present and assisted at this operation twice; in one, the bladder was reached with great difficulty—in fact, it is a question whether it was ever reached at all, as the patient sunk a few hours after the operation; in a second, it was opened with extreme ease, and the

patient did well. These variations in the comparative difficulty of the operation are dependent on the depth of the perinæum, and the relation of the bladder to the surface.

In this operation, the patient is placed in the same peril as after the ordinary operation for lithotomy, and again, it leaves the primitive disease untouched. I should never advise, never sanction it, and certainly never perform it in such a class of cases.

In the second operation, above the pubes, again, the anatomical relation of the bladder to the abdominal parietes must be borne in mind. In aged persons, the bladder, even in a moderately distended state, hardly rises above the top of the pubic bones; whilst in the young, the fundus and a great part of the body of the bladder are actually in the abdomen; between these two extremes, of course there must be great variety of relation with regard to the bladder and the upper surface of the pubes. Hence it happens that surgeons have varied in the directions which they have given for the performance of this operation; some advising the trocar to be introduced on a level with the upper border of the body or the crest of the pubes, and others recommending its introduction an inch and a half above this point. It is owing to these variations in the position of the fundus and body of the bladder with regard to the pubes, that, easy as the operation may seem, the trocar has been inserted above the pubes for the purpose of tapping the bladder, and has never touched this viscus at all.

Again, the thickness of the abdominal parietes in some subjects loaded with fat prevents our ascertaining, by percussion or the finger, the actual situation of the bladder; whilst in other thin subjects, the extent of the bladder in a distended state may be pretty well defined. Apart from these difficulties, the operation of puncturing a distended bladder above the pubes is easy enough; but there are many and great evils which follow the operation, supposing the bladder to have been fairly opened by the trocar. 1st. The uncertainty of the part of the bladder that may be opened. We cannot tell whether the trocar has entered near the fundus, or towards the centre of the body of the bladder; if in the former position, it would be next to impossible, unless we turned the patient upside down, to evacuate its contents. The trocar ought to pass through the integument, the superficial fascia, with its adipose tissue, the linea alba, between the pyramidales muscles, and the coats of the bladder; but it is just possible that if the bladder be low, and we tap above the pubes, the peritonæum may be wounded; and if so, the trocar must pass through it twice, viz., through that portion which lines the abdominal parietes, and the second part which is reflected over the bladder. 2nd. The difficulty of retaining the trocar in its position, as the bladder collapses or contracts. Nothing can be more probable than that the instrument should slip out; and were it to do so, effusion of urine would probably follow, and there would be no possible means of introducing the trocar again, since the urine would dribble from the puncture already made, and the bladder would not become again distended. It must be recollected that our road to the bladder through the urethra is shut up, and we are very differently placed to what we should be on opening the bladder for the extraction of a stone, where an instrument may be introduced along the urethra, and its point made to project above the pubic bones. The celebrated Frere Cosme invented an instrument for this purpose, which is on the table. He called it the "*sonde à dard*". 3rd. We leave the primitive disease untouched in this operation, and only provide for the emergency, i. e., the retention of urine.

Although this operation has been recommended and practised by some surgeons of high authority, it is one I should never advise, unless there are circumstances which absolutely prevent the adoption of the two modes of operating I am about to consider. These are—puncture by the rectum, and opening the urethra through the perinæum.

These two are the operations which are certainly to be preferred to all others; but there are circumstances in which

each has the advantage. If the finger be passed into the rectum, and its point immediately bent forwards and pressed upwards towards the urethra, the tip of the finger touches the bulb of the urethra, which is separated here from the rectum by a variable distance, but which distance may be determined by examining the surface of the perineum, and marking the point at which the urethra passes backwards into the pelvis, and seeing how far this is anterior to the anus, the separation between these two points varying from an inch to two inches, and marking the base of a triangular space, the apex of which is formed where the rectum and bladder touch each other. This is the recto-urethral fossa, triangle, or space. It matters little what we call it, if we are aware of its existence and boundaries, which are above, the bulb and membranous portion of the urethra, and the prostate, and below the rectum in its whole course; there existing a loose cellular interval of some extent between these two which I have just described. If we pass the finger introduced into the anus backwards along this space, we first encounter the bulb immediately under the skin of the perineum, then the membranous portion of the urethra, still further backwards the prostate, and behind this the body of the bladder itself, under ordinary circumstances uncovered by peritonæum, the rectum generally being in contact with the prostate, and the part of the bladder just mentioned. At a variable distance behind the prostate, say from half-an-inch to two inches, the peritonæum is reflected from the bladder to the rectum, and here forms a *cul-de-sac* similar to that one mentioned just now as passing from the fundus of the bladder to line the abdominal parietes. It is in that part of the urethra passing along the upper portion of this space that stricture requiring operation either on the bladder or urethra is generally situated, *i.e.*, near the bulb of the urethra.

During the last few years, more than an average number of bad strictures have been treated in the Queen's Hospital, and in some of these cases it has been found necessary to relieve the bladder by operative measures. In all instances, except one, the bladder has been relieved through the urethra; and the following operation has been performed with a very great amount of success.

The patient has been placed as in the lateral operation for lithotomy, a full-sized catheter or large staff has then been passed down to the stricture, and the urethra opened upon its point. In a great majority of instances, it has been found, when this has been done, that though it was impossible to pass any instrument into the bladder the whole length of the urethra, yet one could be generally passed into it from the wound in the urethra; this is not surprising when we consider the alteration in the walls and even the direction of the urethra, caused by an old, long, cartilaginous stricture. In no instance has it been found impossible to penetrate into the bladder in this way, although some time has occasionally been spent in dilating the constricted portion of the urethra beyond the point of the staff.

This is similar to an operation spoken of by the late Sir A. Cooper, in his "Lectures on Surgery", who appears to have hit upon it by accident in a patient of Mr. Chandler's, who doing well, he continued to perform it in cases of impassable stricture. It is singular that in the discussion upon Mr. Cock's paper at the Royal Medical and Chirurgical Society last May, on "Puncture through the Rectum", this mode of relief was not alluded to by any surgeon present; and it does not appear to be a received or accredited operation in surgery, although in a certain class of cases the only good one admissible. I allude to cases of perineal abscess, where a circumscribed abscess, limited by the attachments of the superficial perineal fascia, is found between the anus and the base of the scrotum, sometimes running upwards and even filling and distending the latter. The conditions of the patients are a distended bladder, an abscess in the perineum, and the impossibility of passing a catheter through the urethra into the bladder. In such cases, the operation I have just detailed is the one to be performed. We relieve the bladder and divide the

stricture at the same time. Here, then, we have not only temporary but permanent relief.

Mr. Guthrie, in his *Sexual and Urethral Anatomy*, also recommends an operation of this nature, though somewhat modified. This operation has its advantages and disadvantages; in fact, no mode of operating in such a class of cases is without both. 1st. The bladder is not interfered with; but its distension is relieved by the natural passages, whilst the cause of retention is removed at the same time. These are great points. 2nd. The disadvantages are, it is not easy of performance; if the perineum be very deep, the stricture very far back, long, and tortuous, there is some, but still not great difficulty in finding the continuation of the urethra. The patient must wear a catheter in the bladder for a variable period, which is in some cases productive of much mischief, and in many cannot be done at all, owing to the great constitutional disturbance the presence of the instrument produces. Again, the permanence of perineal fistula is to be dreaded.

I must repeat that in the class of cases I have alluded to, with impassable stricture and abscess in the perineum, it is the best and right operation; but in simple retention from stricture, without perineal abscess, I am not quite certain whether puncture of the bladder through the rectum ought not to be preferred.

In the year before last, I was led to think much of this operation from the occurrence of a case of retention which had been threatening for some time, owing to the gradual diminution in the stream of urine from permanent stricture, through which a small bougie, or catheter could only occasionally be passed, and which operation had in two instances been followed by complete retention for more than twenty-four hours, a circumstance very common after passing a bougie through an irritable stricture, or even down to it. At length, complete retention set in; it was impossible to pass a catheter, and all the usual medical means failed to relieve the bladder. The patient's state became so imminent, and his pain so great, that I punctured the bladder through the rectum, the distended portion being easily felt behind the base of the prostate, which was not large, close to the posterior border of which the curved trocar was introduced in the ordinary manner. The urine was drawn off, the trocar retained by a bandage, the external orifice closed by a small gutta percha plug, and a full dose of opium given for the prevention of any action of the bowels, which would have disturbed and very possibly forced out the trocar.

This instrument was retained from the Tuesday till the Friday morning, when an attempt was made to pass a No. 4 catheter into the bladder. The instrument was passed through the stricture with some difficulty, and the trocar was withdrawn. No urine flowed by the rectum after this; and I consider the fear of vesico-rectal fistula, as a consequence of puncture of the bladder through the rectum, has been much overrated. I have never seen such an occurrence.

The operation through the rectum appears to establish a principle in the treatment of stricture beyond the mere relief of the distension of the bladder from urine; and that is, that it relieves the stricture from the irritation occasioned by the passage of urine along the urethra; and allows the irritable, congested, or inflamed membrane which lines it to recover its natural condition, or an approach to it; so that, after a few days, urine, which would not flow at all, flows in a good stream; and instruments, which could not be made to enter, pass freely.

There are certain conditions of the prostate gland which would mechanically prevent the performance of this operation, such as its great size, and its extent so far backwards as to render it probable that the peritonæum must be wounded in opening the bladder from the rectum; and this is about the only anatomical objection that can be raised against it. The late Mr. Liston, who has condemned this operation in his work on *Practical Surgery*, performed it in after life, and approved of it. It is easy of performance; gives immediate and certain relief; and there are less dis-

advantages and more success attending its performance than belong to most of the operations which I have passed in review.

In concluding this lecture, let me impress upon you the fact, that puncture of the bladder is rarely required if the case has been properly treated. I do not say never—I say rarely. The rules which I laid down at the commencement of the lecture are safe, and must be your guide, under circumstances of doubt and difficulty. I wish you to bear in mind also, the chief object I have in view in this lecture, is to show you the relation of different modes of operating to different forms and complications of urethral obstruction, and to give you some anatomical details which are always safe and sure guides in practice.

Birmingham, March 1855.

ON THE EPIDEMIC OF CARBUNCLES AND BOILS.

By THOMAS HUNT, F.R.C.S., Surgeon to the Western Dispensary for Diseases of the Skin.

[Read at the Medical Society of London, Saturday, March 10th, 1855.]

THE object of this paper is not to propound any new doctrine, but simply to contribute and elicit information, and to promote discussion on the history, pathology, and treatment of an extraordinary epidemic which has long been in existence among us, still exists, and still advances, and of which little but its existence appears to be known at present by the profession. This epidemic consists simply of an extraordinary prevalence of carbuncles, boils, whitlows, pustules, and small superficial collections of purulent matter in various forms. Of these, boils or furuncles have been the most common; hence the disease has been called the *furunculoid epidemic*.

I shall endeavour as concisely as possible to trace the history and geographic extent of the epidemic, and then say a very few words on its pathology and treatment.

My own attention was first arrested to the prevalence of these diseases in the autumn of 1847, when, at a healthy spot on the coast, at which I had scarcely met with a case of carbuncle once in a year, a remarkable number of cases occurred in rapid succession, extending over the summer of 1848. During the season, I came in contact with several medical visitors from the neighbourhood not only of London, but of various other parts of England, to each of whom I put the question whether a similar frequency of these diseases had been observed. Every practitioner, I think, without exception, replied in the affirmative. Although this might be only a contingency, I could not resist the conclusion that an epidemic existed. Further inquiries satisfied me that the epidemic had extended throughout the whole of England, Wales, Scotland, and Ireland; and I was ultimately enabled to trace it, by evidence which time does not allow me to rehearse, to almost every civilised country on the face of the earth. I have evidence of its existence, almost from that time to the present, in every part of the metropolis and its suburbs, in Oxford, Cambridge, Bath, Bristol, Birmingham, Manchester, and other cities and towns of England and North and South Wales, the northern coast of Kent, the southern coast of Hampshire and the Isle of Wight, in Ireland and in Scotland, in France and Austria, in both the East and West Indies, in the cities of Philadelphia, Boston, and New York, and even at the Cape of Good Hope: and what is most singular, it appears to have broken out almost simultaneously in the four quarters of the globe; in fact, to have originated in some unknown but ubiquitous and universal cause.

It is difficult to ascertain with any approach to accuracy the definite extent of an epidemic which numbers among those attacked a very small proportion of fatal cases. Carbuncle is the only form, indeed, in which the visitation has been at all frequently fatal; and perhaps the best mode of taking the statistics of the epidemic is to compare the

number of fatal cases of carbuncle in different years: and this we have no means of discovering except by reference to the metropolitan districts. Most fortunately, within the last fortnight, an authentic document has been issued by the Registrar-General, which throws light on this question; I refer to *A Summary of the Births, Deaths, and Causes of Deaths, in London, for the fifteen years 1840 to 1854*, compiled from the weekly returns, and published by authority of the Registrar-General. One single sentence in this summary gives a most comprehensive view of the progress of this epidemic. "Carbuncle", says Mr. Farr, "began to prevail in 1847; and, although it is rarely fatal, the deaths from it in a year have increased from 5 or 6 to 50, 70, and this year (1854) 91." Now, although a considerable deduction is to be made on the score of the increase of the population, yet some extraordinary cause must exist for so remarkable an increase as from 5 or 6 cases in the year to 91. If we further examine the returns, we shall find that the deaths from "phlegmon" and "disease of skin" have increased in a very similar ratio. The diseases comprehended under these heads probably for the most part consisting of some other forms of the same epidemic. It is evident that, up to the end of 1854, the epidemic was advancing in a geometrical ratio. During the months of January and February in the present year, the deaths from carbuncle appear to have been rather fewer than the previous average; and I should be glad to be informed whether, during the prevalence of the late extremely cold weather, these diseases have been found in the experience of the Fellows, as they certainly have been in mine, less frequent than before the frost.

This very scanty account of the history of the epidemic, I trust will suffice, because many notices of its existence are to be found in both the British and foreign periodicals, and I do not wish to occupy the time of the Society by dwelling tediously upon what is already familiarly known to all who hear me.

PATHOLOGY OF THE EPIDEMIC. I use this term in its widest sense as comprehending all that is known of the characters and etiology of the epidemic. I have no microscopical observations to offer, nor is it likely, if I had, that they would throw any light on the disease. Neither am I prepared to offer anything relating to the cause of the epidemic, which, like that of other epidemics, is involved in mystery. Sometimes, however, in the absence of positive knowledge, analogy will serve to lend a feeble light where all is darkness beside; and by first marking what is peculiar about this epidemic, and then inquiring whether this peculiarity has recently prevailed in reference to other diseases, we may gain at least a point of comparison which may aid in any future attempts to generalise.

The leading character of the epidemic is, a tendency to the formation and discharge of purulent matter; this tendency being confined to the surface of the body. That there exists this superficial localisation as a true character of the epidemic may be proved, not only by general observation, but by a reference to the Registrar-General's returns, from which it appears that while the deaths from "abscess" (a term usually applied to lumbar and other deep-seated collections of matter)—while these appear to have diminished in number during the existence of the epidemic; the deaths from "phlegmon" appear to have more than trebled their usual number during the last few years—this term being employed to denote superficial inflammation generally terminating in suppuration. From Philadelphia and other places, accounts have reached us of the great prevalence of "superficial abscesses and whitlows"; cutaneous eruptions of the vesicular class have been observed speedily to become purulent, especially under depleting treatment, and what is most singular of all, small-pox, a pustular disease frequently terminating in boils and superficial abscesses as sequelæ of the disease, has prevailed with an unusual degree of severity during the prevalence of the furunculoid epidemic, actually advancing with its advance, and retiring with its mitigation; and, contrary to its usual habits, speedily recurring as an