

An inquiry into the average mortality in lithotomy cases; with a few remarks on the operation of lithotrity / By Alexander Miller.

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AN INQUIRY
INTO
THE AVERAGE MORTALITY
IN
LITHOTOMY CASES;
WITH
A FEW REMARKS ON THE OPERATION
OF LITHOTRITY.

BY ALEXANDER MILLER,
FELLOW OF THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

EDINBURGH:
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MDCCCXXI.



NOTICE

TO
ROBERT KNOX, ESQ.


LECTURER ON ANATOMY, EDINBURGH,

WITH GRATEFUL REMEMBRANCES FOR PAST FAVOURS,

THIS ESSAY
IS RESPECTFULLY INSCRIBED,

BY HIS FORMER PUPIL,

THE AUTHOR.



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NOTICE.

I DEEM it necessary to state, that the following remarks were originally composed for the consideration of the President and Council of the Royal College of Surgeons of Edinburgh, when I was a candidate for admission into that body. For reasons best known to these gentlemen, they refused to accept this as a Probationary Essay, consequently I found it necessary to withdraw it altogether, and get up for them a few remarks on a different subject.

I take this opportunity of declaring, that this Essay is not now given to the public by way of advertisement,* nor with a view to raise or injure

* There are many ways of advertising in this world. One man attracts the notice of the public by affixing a placard at the corner of every street, whilst another man, equally respectable, courts notoriety, by calumnious attacks upon individual members of certain societies, more especially if these individuals possess any reputation.

the reputation of any individuals ; nor is there any personal feeling towards any party connected with *As* ~~their~~ publication ; but the sole object I have in view in submitting ^{*it*} ~~them~~ to the public is the same that first induced me to enter upon this subject, viz.—an attempt to arrive at the truth with regard to a most important surgical question.

AN INQUIRY, &c.

IT can be said, with tolerable accuracy, that several centuries have elapsed since surgeons began to inquire into the best method of removing a stone from the urinary bladder, to effect which, with a certain degree of safety to the sufferer, almost every invention, and every method that human ingenuity could suggest, has been put in practice. Governments, even, have condescended to reward the discovery of improved methods of treatment in this afflicting disorder; and though they seldom notice the labours of the purely scientific or professional man, the discovery of a supposed solvent for calculus has not passed unrewarded. The attempts to break down stones in the bladder, without the use of cutting instruments, have already been judiciously noticed and encouraged; there is something, therefore, in the nature of this malady that has called forth the sympathies of mankind, and these sympathies

seem to have extended to the operation itself when performed with cutting instruments. If cutting into the bladder, for the purpose of removing a calculus, were an easy, safe, and comparatively successful operation,* it may be asked, Whence this anxiety to avoid it? Deeper and more extensive incisions than those required in lithotomy, are daily made by surgeons into the human body, without either exciting in the mind of the patient, or of the public, any of that dread and anxiety which precede and follow the operation of lithotomy, however eminent the talents of the operator.

There are persons who affirm, that the average mortality in lithotomy cases, in their hands, is as one in forty-seven,† one in forty-two;‡ and there may possibly be some who give credit to such

* Sir JAMES EARLE, in his comments on Dr Austin's opinion with regard to the operation of lithotomy, says,—“It must be admitted that there are few (operations) so difficult as lithotomy, and that, unscientifically executed, it may be very dangerous; but I trust there are many of our profession capable of ‘performing it dexterously;’ and when skilfully performed, the almost certain success attending it is the best proof that it is not so dangerous as the author has represented it to be.” See *Practical Observations on the Operation for the Stone*, p. 10.

† EARLE'S *Practical Observations*, p. 95.

‡ MARTINEAU, in *Med. Chirurg. Trans.* vol. xi. p. 406.

affirmations. There are other surgeons somewhat more moderate in their pretensions, who admit that they have lost one in forty,* and even one in fifteen;† and others, still more moderate, have admitted that they have lost one in ten and a-half,‡ and one in eight.§ In my estimation, the latter computation, however low in comparison, is not worthy of credence; and I think, that professional persons should not suffer themselves to be persuaded that so favourable an average as even the lowest of the above has ever been obtained, at least in any considerable number of cases. Considering the importance of the subject, I have thought it one which might be submitted in the shape of an inquiry to this very learned body, (the Royal College of Surgeons,) even though it were only expressing my doubts as to these reported successes—doubts which, I fear, I entertain in common with most men, whether professional or not.

* GREEN, in *Lancet*, vol. i. p. 61. for 1827–28.

† LISTON, in *Edinburgh Med. and Surg. Journ.* vol. xxix. p. 236.

‡ CHESELDEN'S *Anatomy*, p. 332.

§ CRIGHTON, in *Edinburgh Med. and Surg. Journ.* vol. xxix. p. 230. Mr Hodson, of Lewes, in Sussex, is stated by the editor of the *Lancet* to have operated on thirty-four cases, losing but one; but, as to particulars, no mention is made.

The present inquiry, then, has a reference almost solely to the result of the operation, as practised by surgeons with cutting instruments for the removing of a calculus from the urinary bladder, and to the average success attending such an operation. I shall take the liberty to add a few words regarding the success of lithontritic cases.

My utmost efforts will be used to avoid every thing like harsh criticism ; and I trust, therefore, that this learned body will do me the justice to believe, that the documents and materials I have examined in the composition of this Essay, have been reviewed by me in an impartial manner, and that it originates in no unfriendly feeling towards the profession, nor even towards the professed lithotomist, that I thus endeavour to reduce this imaginary success to its real value, and justify, as far as lies in my power, the opinions of those, who, with me, (for many there must be of similar opinions,) consider lithotomy and lithotrity hazardous and dangerous operations, and fatal to an extent of which even the public are not aware.

It is reported of Hippocrates, that he required of his pupils to abstain from the practice of lithotomy ; from whence it is probable that, even in those early times, there were professed lithotomists, and from that period to the present, the lithoto-

mist, in some measure, still holds his ground,—at times, itinerant and strictly empirical, and, though brought within the pale of the profession, always affecting mystery and concealment of method; and, above all, persevering in endeavours to prove that his operations are uniformly successful. In such instances, if a fatal case does force its way into public notice, the misfortune is denied to have had any connection with the operation.* Every surgeon endeavours, to the best of his power, to explain, in a manner favourable to himself, the cause of death in such cases as may turn out unfortunate in his hands; and this is a privilege to which he is fully entitled; for it is reasonable that such explanations should be given as frequently as possible. Although it be true that, occasionally, explanations have been given of the cause of death in lithotomy cases, which set all reasoning at defiance, and would be irresistibly ludicrous, were it possible to lose one's gravity in so serious a discussion;† however

* See Sir J. EARLE, at p. 97 of his *Practical Observations*; and a number of cases recorded by Mr SYME in the *Edinburgh Medical and Surgical Journal*, to be noticed more particularly afterwards.

† See SYME, *Edinburgh Medical and Surgical Journal*, vol. xxxv. p. 248.

trivial the reasons may be, which are sometimes given with respect to the fatality of such cases in the reports of operations, this course is infinitely preferable to their total omission, of which fault, I fear, it will not be easy altogether to exonerate the lithotomists of this or of any other day.

When we consider the sources of information regarding the average fatality in lithotomy cases, we readily enough discover that these are two, viz. the result of private and of public practice. In so important a matter as this, it is with regret and reluctance that I feel it necessary to decline putting any reliance upon the documents furnished by the private practitioner, as being the result of his private practice; neither shall I enter here upon the reasons that have determined me to do so, as they will no doubt suggest themselves in abundance to the reader of the present Essay. Your most excellent fellow-member, the late Dr Brown, in his admirable critical inquiry into the efficacy of physic and of physicians in shortening the duration of fever, admitted, if I remember right, into that inquiry the records of public practice only, wisely calculating that such documents alone could afford correct materials for drawing legitimate conclusions. Confining myself, therefore, altogether, or nearly so, to hospitals,

and the reports made by hospital surgeons, I find, that of the surgeons of whose operations we have any thing like a tolerably accurate statement, the first is Cheselden, who, at St Thomas's Hospital, performed the operation two hundred and thirteen times.* Of this large number twenty died ; but we are at the same time informed, that several more died of smallpox ; and these deaths from smallpox, whose number he does not think fit to mention, were, in all probability, numerous, and have been set down by him to the successful side of the average ; and yet it must be obvious to every one, that an average only of the success in these cases should have been placed on the successful side, and an average mortality on the opposite. We may with safety, then, I think, reduce the average success in Cheselden's cases to somewhat less than one in ten and a half, the average which he himself has given. But though I have, in accordance with all medical writers, spoken of the history of Cheselden's cases as given by himself, I do not think it proper, giving to the whole subject that cautious examination which it requires, to admit as a document, entitled to a full consideration, statements made by surgeons

* CHESELDEN'S *Anatomy*, p. 332.

of hospitals in which proper records were never kept. It must be known to every one, so far at least as I am aware, that authentic, strict, and official records of cases have never been kept in any London hospital. I should, nevertheless, feel happy to be corrected if in error on this point. I have made strict inquiry of gentlemen who have been educated in these hospitals, and find from them that no such records are ever kept; and that no official document could be produced, as to a matter of this kind, by any London hospital. It is admitted by Cheselden, that, previous to operating in these two hundred and thirteen cases, he had lost four in ten,* and, in the high operation, one in seven, exclusive of two in which he cut into the general cavity of the peritoneum: the result of this peculiar style of operating has not been mentioned. Making all allowance for the quaintness of the style peculiar to the times in which Cheselden wrote, it must be admitted that his statements are not strictly professional, and that his anxiety to be thought the most successful lithotomist of his day, might have induced him to exaggerate, and disregard precise accuracy. Speaking of his success, he says, "What the

* CHESELDEN'S *Anatomy*, p. 329.

success of the several operators was, I will not take the liberty to publish ; but, for my own, exclusive of the two before mentioned, I have lost no more than one in seven, *which is more than any one else, that I know of, could say* ; whereas, in the old way, even at Paris, from a fair calculation of above eight hundred patients, it appears near two in five died." After a statement of this kind, I hope I shall not be exceeding the bounds of fair criticism, if, setting aside his pretended averages, we take the average fatality, even in his hands, to have been similar to that of the Parisian surgeons, two in five, or nearly so.

Mr Smith of Bristol, in his *Statistical Inquiry into the frequency of Stone in the Bladder in Great Britain and Ireland*,* furnishes us with a tabular statement, shewing the fatality of lithotomy cases at the Bristol Infirmary, which, although the earliest established provincial hospital in England, appears to be the one that has contributed most to science, by having kept more correct registers than any other yet established. This report merits our most implicit confidence, not only on this account, but also on account of its having been published, not with the view of

* See *Medico-Chir. Transactions of London*, vol. xi. p. 7.

making any one surgeon appear the greatest lithotomist of his age, but solely for the purpose of presenting the world with an authentic statement of the success that has attended the operation in that hospital since its foundation. From that report we learn, that three hundred and fifty-four patients have been operated upon, of whom seventy-nine have died, making an average of one in four and a half. In the same paper, we find a letter from Mr Barnes, of the Devon Hospital, in which is given a table, to shew the average proportion of stone cases cured, to the whole patients admitted into the hospital; we are, moreover, told, that the latter part of this return, namely, for the last seven years, may be considered quite correct—an admission that the first part is not to be depended on, that nine patients have been admitted, and all dismissed cured. Any one, I trust, who reads this statement carefully, will agree with me, that all farther notice of it is unnecessary. We do not wish to know how many cases of lithotomy passed through the hands of this or that surgeon; but, in the pursuit of a surgical question of great importance, we desire to know, how many were admitted into the Devon Hospital, and how many Mr Barnes did not cure.

From Mr Smith's paper we also learn, that at the Birmingham Infirmary, during a period of thirty-eight years, seventy-two operations were performed, five of which occurred in females; and, of the whole, fifty-nine were cured, and thirteen died. Now, this gives us one in five, after subtracting the five female cases from the whole number.

In the same paper, there is a communication from Mr Oakes, of Cambridge, where we are told, not more than one in twenty died from the operation; but then, again, we are inclined to suspect the state of the hospital records, as we find Mr Oakes, in the beginning of his letter, stating, that, as far as he *recollects*, the average number, both in public and private practice, is rather less than four annually.

Mr Smith's paper also furnishes us with a correct copy of the surgeon's books at the Leeds Infirmary. Here the report appears to be official, and, during fifty years, one hundred and ninety-seven operations were performed, in twenty-eight of which the patient died, giving an average of one in seven. This is all the information Mr Smith's excellent paper affords that bears on our subject, with the exception of Norwich, and the result is, that at

Bristol, the deaths are	1 in $4\frac{1}{2}$
Birmingham,	1 in 5
Leeds,	1 in 7

According to Dr Marcet's* return of the cases operated on at the Norwich hospital, from the year 1772 to 1816, four hundred and seventy-eight males were cut, sixty-eight of whom died, making an average of one in 7.22. Mr Martineau,† of that place, has also published a list of cases operated on by himself, from the year 1804 to 1820, inclusive, amounting to eighty-four, ten of which occurred in private practice; and out of this number, he says, only two died; wishing the reader to believe that this was the result of the success that attended his practice. On inquiring into the cause of this apparently most unaccountable success, we find that Martineau has followed very much in the footsteps of Cheselden, and only given the result of a certain number of years' experience, and not that of his whole professional career: of this we are convinced, first, from an expression of his own, where we find him stating, "that during the first years

* See MARCET on *Calculous Disorders*.

† *Medico-Chir. Transactions*, vol. xi. p. 402.

of my practice I was not very successful ;” in the next place, from the return above mentioned, by Dr Marcet, which must have included all the cases of Martineau, except those that occurred during the four last years of his report, the average mortality was one in 7.22. Now, from this, if we admit Mr Martineau’s statement to be correct, we must conclude that his predecessors must have been very unsuccessful, and that it was a very hard case for him, that his merits as a successful lithotomist should be so curtailed by the result of his practice being combined with that of other surgeons so much his inferiors, and his success, by this means, made to appear to be one death in 7.22, instead, as he has given it out to be, one in forty-two. These must, no doubt, have been the reasons that induced Mr Martineau to publish his own account of this matter ; but upon this point we are put right by Dr Yellowley, who never published any report that could not bear the most impartial scrutiny. In a note to his valuable paper in the *Philosophical Transactions*, for 1830, we are told by that candid physician, that the whole number of Mr Martineau’s cases amounted to one hundred and forty-seven, with seventeen deaths out of that number, making the average one in 8.11. Since we find a surgeon so

far wishing to impose on the profession, by publishing a partial account of this kind, of his hospital practice, what reliance is to be placed on the relation of the ten cases that occurred in his private practice, all of which, we are told, were successful. Here, then, we find the average mortality of Mr Martineau's cases rise from one in forty-two to one in 8.11. But to return to Dr Yellowley's statement, we find from it that six hundred and eighteen males have been cut in the Norwich hospital, eighty-seven of whom have died, giving an average of one in 7.1, which agrees to a fraction with the average given by Dr Marcet, who, as will be seen above, makes it one in 7.22.

Mr Crichton,* of Dundee, has published a list of seventy patients operated on by him, nine of which died, making an average of one in eight; but we are led to believe that Mr Crichton has performed the operation a hundred times, from what he himself states, and also from a statement made in Mr C. Hutchison's paper in the 16th volume of the *Medico-Chirurgical Transactions of London*; but from Mr Crichton not having kept an account of his cases, more especially those that

* See *Edinburgh Med. and Surg. Journal*, vol. xxi. p. 226.

occurred in the early part of his practice, and as we do not admit as evidence into this inquiry any thing that is derived solely from memory, I do not feel disposed to include Mr Crichton's cases in this paper.

Mr Liston, of this place, has favoured the profession with the result of his practice, by means of a tabular view,* containing twenty-nine cases of lithotomy; to which he has added, explanatory memoranda, and notes, with reference to some peculiarities in the after treatment, or to the cause of death in the few fatal cases that occurred, these being only two. As the operative part of surgery cannot be carried to a higher degree of excellence by any one, it may, I think, be presumed, that the average success of Mr Liston must be taken as the very highest standard of success in the profession, with a reference, of course, to lithotomy cases. Wheresoever a higher average has been supposed to have been effected, it is reasonable to presume that the mode of operation must have been quite peculiar to the individual; and in order to secure credence to, and confidence in, his statements, it seems but fair, that any greater success than that claimed by

* See *Edinburgh Med. and Surg. Journal*, vol. xxi. p. 236.

Mr Liston, must and ought to be supported and substantiated by explanatory statements of those peculiarities to which I have alluded.* But to return:—The average success seemingly claimed by Mr Liston, is as fourteen to one, being nearly the double of that claimed by any authentic statement on record. To the accuracy of this high average and great success, I beg leave to offer the following objections:—1st, The cases are mostly those of private, not of public practice. 2d, The very different and discordant views which may be taken by different private practitioners of the same case. I shall cite the following as an instance:—Mr Liston operated on Mr J. M.; † the case proved unsuccessful; but Mr Liston argues, that this could not be reckoned a death from the operation, since, as he observes, “the patient died suddenly apoplectic fourteen days after the operation; the urine had resumed its

* We believe Mr Liston does not select his cases of lithotomy, by declining, as Mr Green has done, unfavourable ones. Were surgeons to do this in every disease incurable by other means than an operation, (to which class stone in the bladder belongs,) the practice of surgery would, no doubt, become eminently successful, but would cease to be extensively useful to humanity: we should, in such cases, have to commend the judgment of the surgeon, but severely censure his want of feeling.

† See *Edinburgh Med. and Surg. Journal*, vol. xxix. p. 238.

former course." The actual facts connected with this fatal case of lithotomy differ so widely from this statement, that we do not hesitate to affirm, that Mr Liston must have been very seriously misinformed, and his judgment and confidence altogether abused. "Mr M. *never had the slightest apoplectic symptoms*—he gradually sunk from the moment of the operation; the wound shewed no disposition to heal, *and the urine did not come by the natural passage*; he was watched with the utmost care, and every attention bestowed on him by the surgeon in attendance, and he died exhausted on the fourteenth day. The examination after death shewed extensive inflammation of the bowels, and the contents of the pelvis adhered every where."

The cases I shall next notice, are those published in the *Reports of the Edinburgh Surgical Hospital*.* There we find mention made of thirteen cases. Of these thirteen cases recorded, six deaths took place, or an average mortality of nearly one-half. Mr Syme has his own peculiar views of this operation, but it is proper and right to observe here, that these views were

* See *Edinburgh Med. and Surg. Journal*, vol. xxxii. and following. There are several jobs in Edinburgh, as in all large towns, called hospitals.

adopted, and the following statement made, before the occurrence in his hands of what might almost be deemed a sort of catastrophe in surgical practice. "The operation of lithotomy," says Mr Syme, "as now performed, is one of the *simplest* in surgery; and the importance which is still attributed to it by the public, depends upon the recollection of the shocking and protracted tortures which attended the old method of operating with the gorget. The patient above mentioned is the only one I ever lost* from the operation, and his death may, I think, be ascribed fully as much to old age as to the injury inflicted." Besides these fatal cases, being six out of thirteen, there is a very singular instance recorded, (or, as Mr Syme himself terms it, "a very unusual case in several respects,") of the bladder having been opened as in lithotomy, and one calculus removed, another having been left in the bladder; the patient was shortly afterwards operated on by Mr Liston, and ultimately recovered from this double lithotomy. In the first notice of the case, which appears in the

* Mr Syme has since lost five out of ten; the tortures Mr Syme speaks of as occurring from the old method of operating with the gorget, have been much abbreviated, no doubt, in his own hands, and in those of some modern surgeons; and in some respects, this is an advantage, since a speedy relief from suffering is what is greatly desired by all.

fifth hospital report, under the article *Lithotomy*, as a successful case of that operation, we are told it occurred in the private practice of the narrator, in the son of an artist ten years of age, and “that it was very unusual in several respects.” “On attempting,” says the lithotomist, “to introduce a sound proportioned to the usual size of the urethra at this age, I met with an obstruction about three inches from the orifice, which required a great deal of pressure to admit the entrance of a small instrument. I felt a calculus in the *neck of the bladder*, or rather anterior to it; and putting my finger in the rectum, ascertained that this was really its situation. I performed the operation next day in the ordinary way,”* (I presume the ordinary way of performing the operation of lithotomy,) “and extracted a mass of calcareous matter about the size of a walnut, which seemed to have originally consisted of two nearly equal concretions.” In the altered and amended statement made in the sixth report† we find, under the head, *Urinary Calculus*, the following relation,—“In last report, I mentioned a case of stone that

* See *Edinburgh Medical and Surgical Journal*, vol. xxxiv. p. 239.

† Ibid. vol. xxxv. p. 245.

had occurred in private practice, in which I extracted *two large stones* * from a sac formed by dilatation of the membranous part of the urethra." From the time of the first report to that of the second, the stone of the size of a walnut, situated originally in the *neck* of the bladder, or *immediately anterior* to it, had grown into *two large stones*, situated in a *sac* formed by *dilatation* of the *membranous part* of the *urethra*. When the patient came to be operated on by another surgeon, Mr Liston, some ignorant persons asserted heedlessly, and without having read with sufficient attention Mr Syme's first report, that the operator had neglected to examine the bladder which he had just cut into, and thus, by mistake, subjected a human life to very great risk, and to the torture of a second painful and much dreaded operation. But Mr Syme remarks, that "he then examined the bladder by a sound, and ascertained that it contained no other calculus." † Notwithstanding this examination, we would venture to suggest, that another calculus must have been present at the time, since Mr Syme himself admits, that "after

* The first report speaks only of one.

† See *Edinburgh Medical and Surgical Journal*, vol. xxxiv. pp. 239, 40.

the urine ceased to flow through the wound, which happened about the end of a fortnight, when he began to complain nearly as much as before." In the remarks which follow, I fear I misunderstand Mr Syme. He cautions the reader that, in removing stones from the situation that this one occupied, the surgeon ought to ascertain whether or not there are any in the bladder. Mr Syme next goes on to state,—“For though it may be of *little consequence* to the patient, in respect to pain or danger, whether they be taken away together or separately,” (by which, I presume, is meant, whether you make one or two operations to cure the disease,) “he will, in the latter case, have all the horrors of two operations, and be ready to listen to any suggestions calling the skill of the surgeon into question ;” * and he will have good cause so to do. I cannot here venture, from a want of experience, to decide on the correctness or incorrectness of the opinions which, hastily viewed, might be considered as advocating the doctrine of the “*deux temps*” operation, but more complete in its nature than that originally contemplated, being performed, not only at two times, but in

* See *Edinburgh Medical and Surgical Journal*, vol. xxxv. p. 246.

two different places, and by two different operators. Good surgeons have, so far as I recollect, always been averse to any delay in completing the operation; and, on the bladder being opened, it has usually been deemed advisable to remove all the calculi which it at the time contained.

The history of the case has, perhaps, been given from recollection by Mr Syme, since there are points in it which cannot be reconciled. It is stated, for example, at first, that the symptoms were those which usually attend stone in the bladder; that the patient had complained for five years; and that, latterly, they had confined him to the house in the greatest misery.* In another place, we find the following remark:—"Another important fact which it (this case) illustrates, is the comparatively small uneasiness generally occasioned by stone in the bladder in young subjects: this boy, after the concretions were removed from the *urethra*, walked about as usual, slept undisturbed during the night, and made no complaint, except when he voided his urine. It was this extreme *mildness* of his symptoms that led me to attribute them entirely to the stricture."†

* See *Edinburgh Medical and Surgical Journal*, vol. xxxiv. p. 239.

† Ibid. vol. xxxv. p. 246.

Perhaps it would be proper to set aside this case altogether, as being a case of stone, neither in the bladder nor out of the bladder. If it must be considered ultimately as a lithotomy case, we presume Mr Liston may be allowed to insert it as one of his in the next tabular view with which that distinguished operator may favour the public; and this will allow for Mr Syme the respectable average mortality in his lithotomy cases, of six in twelve, or one in two.

It is a laudable and excellent inquiry on the part of the surgeon to examine most carefully into the causes of death after lithotomy; and this part of the inquiry has not been neglected by Mr Syme, his opportunities for doing so having been very considerable. The causes of death in these six fatal cases, (their authenticity, and the authenticity of the average success as taking place in a public hospital, in the hands of distinguished surgeons, rendering them extremely valuable,) merit particular attention.

In the first of these fatal cases Mr Syme says, "The patient above mentioned is the only one I ever lost from the operation; and his death, I think, may be ascribed fully as much to *old age* as the injury inflicted." I hope we may be permitted to add, in the mean time, that the patient

died of the immediate effects of the operation, since it is not any where stated that he was moribund when brought into hospital, nor when put on the operating table. *Very old* persons do frequently die of severe and extensive injuries, from which those who are younger occasionally recover. In the second case, Mr Syme does not give any opinion as to the cause of death ; but we find him stating,—“ We found, on dissection, a diffused suppuration in the cellular substance, exterior to the left side of the bladder ;” and he should have added, the patient died of extensive inflammation, followed by abscesses within the pelvis, the immediate effects of the operation. In the third case, no explanation of the cause of death is given ; but we again find it stated, that, “ on dissection, there was not the slightest trace of disease in the cavities either of the abdomen or pelvis, neither was there any appearance of inflammation in the bladder ; and the only part that seemed to suffer from disease was the prostate, which was greatly enlarged throughout, but especially upwards towards the cavity of the bladder.” Such cases are by no means uncommon ; a similar one happened in the Royal Infirmary during the autumn of 1828. The patient, a healthy, middle aged man, was operated upon by

Mr Liston, with his accustomed dexterity, and the stone, which was of a moderate size, removed in a minute from the commencement of the operation ; yet the patient, who seemed to do well for a few days, began shortly afterwards to decline in health ; slight fever arose, referrible to no distinct cause, and he died, to the best of my recollection, ten or twelve days from the time of the operation. Dissection shewed no disease within the pelvis ; the wound in the prostate had never closed, and its edges were slightly greenish ; no cause for death could be discovered any where. Such cases are well known to the profession, and they are uniformly set down as cases in which death immediately results from the operation ; they are the most provoking of all to the surgeon, since they seem to be connected with some peculiarity of constitution.

In the fourth fatal case, death is accounted for in the following manner :—“ The fatal result in this case, may, I think with most probability, be ascribed to the effect of suddenly removing a source of extreme irritation, in a very irritable system. In ordinary cases of stone, this diminution of irritation constitutes the patient's safety by counterbalancing the irritating tendency of the operation ; but the irritation in this instance,

being of extraordinary intensity, while the operation, from the small size of the stone, was *gently* and *easily* performed ; it is conceivable that the actions of the system might, from the cause alleged, fall into disorder, and produce the results that have been described." We have seen Mr Liston and other surgeons remove a calculus from the bladder, by two incisions, and at one grasp of the forceps, and the operation might have occupied a minute, or two at the most. One would be inclined to call such an operation, (if any operation could be so denominated,) an elegant and easy operation ;* and if operations of this kind were to prove fatal, owing to the rapidity with which the patient was at once relieved from the calculus, and from all his sufferings and anxiety, we are at a loss to imagine how any of Mr Liston's patients, or those of Mr Green, could possibly escape ; but we beg leave to remind Mr Syme, that the operation in question, in which he imagines he lost his patient in consequence of

* Since this was written, I have again witnessed Mr Liston perform this operation, and feel bound to repeat, that if any operation can be called elegant, it is this one, as performed by this surgeon ; in so far as an unbiassed judgment enables me to venture an opinion, Mr Liston has no equal amongst living operators.

too sudden relief from suffering, was not precisely an operation of the kind I have been speaking of. Two if not three incisions were made into the bladder, the stone having been found to have been too large to be removed by the first incision; at the moment of performing the second or third incisions, the forceps which grasped the calculus were left in the bladder, and instead of being given to an assistant, were allowed to hang dangling down, in front of the perineum, and that to many gentlemen present, of great candour and honour, the operation did not seem a gentle one, nor performed with great ease to the patient. But I do not by this in any way deny, that, compared with some which I have seen and heard of, it may have been in this view easy and pleasant, both to the surgeon and patient.*

* The cases more particularly referred to here are, first, the one recorded by Dr John Thomson in his appendix to a proposal for a new method of cutting for the stone, where this gentleman and his assistant, after being completely exhausted poking in the patient's bladder, put him to bed for five days, when it was "conceived that we might safely repeat *our search* for the stone." Dr T. having called together a number of his friends to witness the second attempt, goes on to state, that "after various trials, in vain, to touch the stone with the finger, I at last felt it with the forceps, and endeavoured to seize it. I had hold of it three several times with the points of the forceps; but on each attempt at extraction, it escaped from

In the fifth fatal case, it was at first conjectured by Mr Syme, that "the patient had died in con-

between the blades. Overcome with fatigue, and feeling myself at that moment beginning to be agitated with emotions of anxiety, I put the forceps into the hands of Dr Brown, and requested he would have the goodness to extract the stone for me. He did so, after some difficulty in seizing it," &c. This patient recovered, and might be brought forward by Mr Syme to support his doctrine. I will just inquire, if none of the bystanders suggested the employment of a hornspoon on such a trying occasion, for we have been informed that, aided with this useful instrument, some celebrated lithotomists have succeeded in extracting the stone, under similar circumstances, after all other means had failed! Second, the cases recorded by Mr Fletcher, in his *Medico Chirurgical Notes and Illustrations*, a quotation from one of which I shall here give: "A great deal of force was immediately applied, and, that not in the best direction, but to no purpose; the stone would not pass; the operator rested; the patient was calm, and complained not; the labours of the former now recommenced with redoubled vigour, and an air which imported a dreadful determination to succeed. His right foot was placed in preparation for this awful struggle against a chair, which was supported by a pupil; the scene became animated, though horrible; the straining and creaking of the forceps, as they occasionally lifted the suffering wretch from the table, (they twice lifted him off it,) his wild agonizing shrieks and entreaties for forbearance, after continuing nearly two hours, gradually became more faint, and sunk at last into a piteous moan; and when the stone was shewn him, it was doubtful whether he saw it, or was even conscious, that a period had at length arrived to his sufferings. He expired a few minutes after being carried to bed. The body was not examined."

sequence of peritoneal inflammation, excited by the loss of a great quantity of blood during the operation :” there is no mention made of the probable cause of death in this case in the published report of it ; but we find it stated, “ that on dissection the peritoneum was found more red than usual, and at some points small spots of extravasated blood were perceptible,” and that a large anomalous artery was cut across as in Mr Shaw’s case.

The sixth and last of Mr Syme’s fatal cases is thus recorded, “ The result of the following case, though operated upon under less promising circumstances, was more fortunate.” The patient, aged eighty, was relieved of twenty-three stones on the 15th May, not without difficulty, owing to the great capacity of his bladder : the report goes on to state, that “ he never had a bad symptom from the operation, but was for several weeks so extremely feeble, that great apprehension was felt of his sinking ; the wound is not entirely healed yet, but he is, and has been all along, free from pain.” What is meant by the expression “ was more fortunate,” I am quite at a loss to understand, unless it is, that this patient had the good luck not to die on the day after the operation, as his predecessor did, but to die after lingering for some weeks : we are also told, that “ the

wound is not entirely healed yet;" and, it may be added, that the wound never healed, but remained open until the death of this "more fortunate" patient, which event *had taken place*, at the time that the proof sheets containing this report passed through the hands of their author. Mr Syme, with his usual candour, takes no notice of the event: the reader is led into the belief that this was a successful case, the operator being at the same time aware that the patient was dead.*

There is a passage in the *Practical Observations on the Operation for the Stone*, by Sir James Earle, which, as often as I read it, excites my

* I am borne out in this assertion by what has been published in the *Lancet* since this was written. In reviewing these cases, it is stated, "The second case (alluding to this one) was *successful*, although the patient was eighty years of age," &c. This case illustrates well "Mr Syme's *indefatigable exertions and talents*, as well in the furtherance of this excellent institution as in the *cultivation and improvement* of surgical knowledge." The reader of these remarks is requested to contrast the above laudatory critique of the *Lancet* with the atrocious and unfounded calumnies published by the editor of the same Journal, when a case similar to Mr Syme's fifth fatal one happened in the hands of Mr John Shaw of London. The reader is requested to contrast the observations, and then to consider what epithet in all truth could be applied to the editor of the Journal in question.

astonishment and admiration. That distinguished surgeon says, "That his first operation for lithotomy was performed in 1770; that he recollects of forty-seven cases in which he operated, which all did well excepting one, which died; and, as there were peculiarities in the case of that person, in justice to the operation they should be noticed." Here Sir James expressly states, that "he conceives the loss of this patient cannot fairly be ascribed to the operation," notwithstanding this event took place on the fourth day after the operation, and the "bladder, on examination after death, was found thickened and diseased, bearing evident marks of continued inflammation." Sir James would wish the reader to believe, that the death was caused by the lithontriptic medicines that were used previous to the operation, and gravely remarks, that "this case leads me seriously to recommend not to perform the operation of lithotomy in less than a month from leaving off a course of what are called lithontriptic medicines." Might not the peculiarities in this fatal case have been, perhaps, connected with a too sudden relief to the patient, by removal of the calculus, owing to the operation having been performed in too easy, gentle, and simple a manner?*

For it would seem agreeable to the opinion of

* See quotation from *Edin. Med. and Surgical Journal*, at page 28.

some surgeons, that a certain quantity of delay, and consequently of torture, must be inflicted on the patient undergoing the operation of lithotomy, to render that operation safe. Now, here arises a nice question for the practical surgeon, as to the maximum and minimum of suffering which a patient ought to undergo, in order to have the operation of lithotomy safely performed, the time taken in its performance ranging from two minutes, to somewhat more than double as many days;* and to graduate nicely, according to the constitution of his patient, what quantity of suffering ought to be inflicted on him. When a limb is amputated, or an extensive tumor, situated amidst dangerous parts, has been removed, and the patient gradually sinks from the time of the operation, and dies after a period varying from one to ten or fourteen days, we say he has died of the shock of the operation; and though this language does not convey any very precise idea to the mind, still it is generally understood, and generally employed; and were I, in relating a case in which a limb had been amputated for some painful and distressing affection—such as, for example, happens in those kinds of white swelling, wherein the patient, worn out, irritated, and exhausted for want of sleep, borne down with the anxiety of carrying about with

* See *Edin. Med. and Surgical Journal*, vol. xxxiv. p. 12.

him an incurable malady, and harassed with unceasing pain, at last consents to the removal of the limb—should it happen that this patient, instead of gradually and steadily recovering from the operation, as so generally happens in all chronic cases, gradually sinks and dies, the wound never closing, nor any symptoms appearing to indicate he had, in any way, recovered from the shock of the operation,—would any surgeon in the world believe me, or would it be credited that I believed myself, in the statement made, that the person died, not from the immediate consequence of the operation performed upon him, but from my having improperly adopted the double flap operation, whereby the time occupied in its performance came to be only about four minutes, whereas, had I adopted the good old method, which, young as I am in the profession, I have often witnessed, protracting the operation to forty or fifty minutes, my patient might easily have recovered?—But to return to Sir James Earle and his extraordinary success: This distinguished surgeon says, he has “an account of forty-seven cases, but the total amount, unfortunately, I have no means of ascertaining; for, in the earliest part of my practice in St Bartholomew’s, not foreseeing that one day I should wish to recollect them, I was not attentive to make memoranda of every

case that occurred." Now, in what London hospital, I repeat, have public documents ever been kept of fatal or successful cases? There is a part in the history of Sir James Earle's success, which we do not well understand: that gentleman was still operating in 1814 and 1815, and had for colleagues Sir Gilbert Blane and Sir Ludford Harvey. But we have been assured, on good authority, that, during that session, there did not occur a single lithotomy case.

To Mr Green's great success I have two objections to offer, the mere statement of which will, I think, be sufficient to set aside that surgeon's average. In the first place, Mr Green selected his patients; and, secondly, Mr Green can have no authentic documents to substantiate his statement; for we find, in Mr C. Hutchison's *Inquiry into the frequency of Stone in the Bladder in Seafaring People*, "That Mr Green, at St Thomas's Hospital, where *there is no official register kept*, states, that the *sister* (hospital nurse) who attends all the lithotomy cases, *says, she thinks* a young man about twenty was of the seafaring line."*

* See *Medico-Chirurgical Transactions*, vol. xvi. We should like much to see a military or naval surgeon, in the service of any European government, reply to a query put to him by his government, as to the mortality or success in his operations, by returning an answer founded on the *recollection* of nurses and hospital servants.

LITHOTRITY.

LITHOTRITY is the name given to that operation, by means of which stones are so broken down within the bladder, that they may be extracted through the natural passages; thus avoiding the use of cutting instruments, and the necessity of incisions into the bladder.

This operation has attained a high degree of perfection in France, in the hands of Civiale and Leroy. The operation has also been practised by some British surgeons; some itinerant foreigners have likewise exhibited the operation in British hospitals.

It is natural for these men, claiming as they do the merit of discoverers, not only to hold up the fair side of the question to the public, but to endeavour, in as far as they can, to throw lithotomy into the shade, and to induce the substitution of their supposed improved operation for it. In considering the merits and demerits of the lithontritic operation, we encounter, again, the same attempts that we have seen made by the lithotomists, to prove their operation to be simple,

and of easy execution, causing no great suffering to the patient; and, above all, successful. That they have not hesitated to exaggerate success and palliate failures, and even, with great effrontery, to falsify reports, which the public hastily were led to believe official, is what, I am sorry to say, has happened almost under my own observation. But, least I should be supposed personally prejudiced in this matter, and that I may have, without due consideration, extended to the lithotritist my disbelief in the statements, and my want of faith in the professional character of the lithotomist, I shall take the liberty of supporting what I have to say, on the authority of a distinguished foreign surgeon, who, residing in the French capital, must have had daily opportunities of verifying the cases of the lithotritist, and who, moreover, was delegated to inquire officially into the correctness of the statements made by these persons to the Institute of France.

What I myself have seen has impressed me with an exceedingly unfavourable opinion of lithotrity. From what I witnessed of this operation in the Parisian hospitals, during the greater part of the year 1829, in the hands of Leroy and Civiale themselves, I had come to the conclusion, that it was in no way preferable to the operation of

lithotomy ; for, although I did not see so many deaths in the one case as I had previously witnessed in the other, still, taking into account the length of time the patient was exposed to suffering of the most severe description, at each application of the instrument, (for every one must be aware that it cannot be finished at one attempt, but requires sometimes so many as seven or eight,) the violent attacks of inflammation that follow it, and the weakened and exhausted state in which these attacks too frequently left the patient, so as often to render his dismissal from the hospital absolutely necessary ; and even sometimes causing death itself. For these reasons, and the appearances that I witnessed, on dissection, of two fatal cases, and the result of many others, I was thoroughly convinced that it was a painful, very uncertain, and too often fatal operation. In neither of the fatal cases witnessed by me was the stone found to have been entirely removed from the bladder, and, I may here add, that I never was convinced that a single patient was dismissed cured by this operation. The first of these fatal cases occurred in the hands of Civiale, on a patient about thirty years of age, who died on the second day after the first attempt to break down the stone.* On

* And yet Civiale *selects* his patients with the greatest care.

dissection, the bladder was found to contain a pretty large stone, which had been seized with the forceps, and slightly touched with the perforator; the mucous coat of this organ was highly vascular, and in some places reduced to a pulpy mass.

The second case, which occurred in the hands of Leroy, was the case that is considered by every one to be most favourable for the operation, namely, where the stone is small, and the disease of short duration. The patient, a peasant, during the summer of 1829, had been amusing himself by passing a straw into his urethra, a portion of which remained in the membranous part of it; this, on an attempt being made to extract it, was forced into the bladder; there it remained for about three months, during which time a calcareous deposit had formed around it. On the first and second attempts to remove this by means of lithotriety, the patient suffered excruciating agony, followed by severe attacks of inflammation of the bladder, and neighbouring parts,* so that, when

* We find it stated by the reviewers of FLETCHER'S *Medical Chirurgical Notes and Illustrations*, in the last number of the *Edinburgh Medical and Surgical Journal*, that "it is a singular fact, that, in the cases operated on in Paris by Civiale, so little irritation seems to be created, that the patients have often walked home afterwards; and in none of the cases have any alarming symptoms of inflammation taken place." I have not the smallest

placed on the table for the third time, no one could have believed it to have been the same individual that lay there six weeks previously, had he not been in the habit of seeing him from day to day ; for, instead of the fine, healthy, robust peasant, we beheld a man worn out by disease, and hectic. Under these circumstances, who can wonder that he never rallied after the third attempt, but gradually sunk, twenty-four hours after the operation. I may add, that, at each attempt, small pieces of the calculus were removed, and even some fragments of straw. On dissection in this case, the bladder was found highly inflamed, in many places ulcerated, and contained the remains of the calcareous deposit surrounding the straw.

With reference to the opinions of Baron Larrey, we find them embodied in the following report, an extract of which I shall here quote as we find it given in a French journal :—“ M. Larrey commenced, by presenting the academy with a succinct analysis of the memoir laid before them, by M. Civiale. In one of the cases operated on

doubt of this being Civiale's statement ; its repetition, however, can only be made by one totally innocent of the slightest knowledge of this operation.

by this surgeon, the stone was exceedingly large, and nearly filled the bladder, but was, according to the author, attacked successfully with the lithontritic instruments. In the case of an old man, the stone was situate behind the prostate, but was also crushed. Another patient offered the complication of excessive irritability, but he was also cured. M. Civiale next gives a notice of the present state of lithotrity, and remarks, that its principles are every where adopted. The reporters on this memoir, while they profess entire reliance on the honour of M. Civiale, at the same time thought it right to repair to the Hôpital Necker, where they obtained precise information on the results of all the calculous cases treated in that establishment, and according to which M. Civiale had framed his memoir. Baron Larrey, however, in the name of the commission, expressed his regret that M. Civiale had only put forward the advantages of lithotrity, and the successful cases, while the information obtained at the Hôpital Necker, proved that the fatality was as great as in the section cases at the other hospitals in Paris. On the whole, M. Larrey spoke very sharply of M. Civiale; he reminds him, that the greatest surgeons were not wont to conceal their unfortunate cases; he added, that M. Civiale has

decidedly failed to prove the superiority of the lithontritic method ; but he concluded, that the facts advanced by the author of the memoir were sufficiently valuable to entitle him to the recompense awarded by the academy.”*

I trust it has been made sufficiently clear to this learned body, that, judging of the documents submitted to the public, and reviewing impartially the time, place, and circumstances of their getting up, it cannot be truly said that lithotomy has been a tolerably successful operation in the hands of any surgeon, dead or living. It has been shewn to be an operation whose average fatality is at least one in seven ; but my own belief is, that even this is too high. We have just witnessed it as low as six in twelve, or as one in two. That an operation should be fatal in the ratio of six to twelve, and had such a lamentable result happened in the hands of an ignorant person, and of one unacquainted with the anatomy of the human body, it would perhaps not have excited much surprise ; but occurring in the hands of a surgeon of much experience, considerable reputation, and

* See *Lancet* for May 21, 1831, p. 229, extract from *Lanc. Franç.*

possessing anatomical knowledge far above mediocrity, renders the whole subject one of the deepest interest to the surgeon, and to the public; and if we have no other ground for our attacks on the reputation of surgeons of former times, than the dread which the public still feels for the operation, a dread which has been ascribed to “the recollection of the shocking and protracted tortures which attended the old method of operating with the gorget,” let us hope that these calumnies will cease, since the cause of that dread, notwithstanding the substitution of other instruments for the gorget, remains in full force to the present hour,—ay! and that, too, in the hands of Hospital Surgeons.

THE END.

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