ON
LITHOTOMY,

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THE subject of calculous disorders having of late excited considerable attention, and a return to the high operation recommended in preference to the lateral, at present in use, it may not be without some advantage to consider the success which has attended the lateral, and that which is likely to follow the high operation.

Mr. Carpue has lately given a very useful history of the various operations of lithotomy, and recommended the high operation as performed by Dr. Souberbielle at Paris; but unless the success be greater, or the operation less difficult than the lateral, it may not be found prudent to resort to it. It must be confessed, that, in Dr. Souberbielle's operation, many of the former dangerous consequences of the high operation are avoided, by the use of the sonde-de-dard; still, the reasons which

Mr. Carpue gives for preferring the high operation are by no means conclusive :

His first, " That it is generally performed in less time than the lateral operation."—This is not at all probable, as it is much more complicated, and the lateral seldom occupies more than two or three minutes.

Second. " There is less pain."—Being a double operation, it *cannot* be less painful, unless in the case of a very large stone, and where it breaks.

Third. " There is no fear of a fatal hæmorrhage."—Neither is there much from the lateral, as not one has occurred in the 574 patients cut in the Norwich Hospital, nor have I witnessed a fatal case in private practice.

Fourth. " There is no division of the prostate, nor of the inferior part of the bladder, nor is there any danger of wounding the rectum."—So seldom does inconvenience arise from any of those occurrences, that they should not be regarded as militating against the lateral operation.

Fifth. " The stone, if of a certain size, cannot be extracted by the lateral, but may be extracted by this method."—This is scarcely to be considered as a superiority; as it seldom occurs, that a stone is so large as not to be taken away by the lateral

operation ; only one such case has occurred in forty-seven years out of the 574 operations in the Norwich Hospital ; and, from a very large stone, much danger may arise, even in the high operation.

Sixth. “ A small stone is more readily discovered by this method, than by the lateral.”—But when did it happen that a stone was so small as not to be discovered in the lateral operation ? or, that it was not found to have come away with the rush of urine which follows the opening into the bladder ?

Seventh. “ If the stone break, the particles can be extracted with more certainty than in the lateral operation.”—In both operations a stone breaking must occasion great distress, and a small portion may be left ; but, for the most part, such particles come away afterwards with the urine, and it is not impossible that in the high operation some fragments may escape the finger, and then, *they* never *can* be discharged.

Eighth. “ If the stone is concealed in a cist, the cist can be destroyed, and the stone extracted.”—If a cyst envelopes a stone, it will not be felt by the sound, and no operation would then be attempted ; but stones in cysts are *rare* occurrences, if *ever*, and *never*, that I knew, was the cause of failure in the operation.

Ninth. "In case there should be any disease of the bladder, it can be examined, and proper means prescribed for the cure."—The discovery of the exact condition must be very uncertain, and the *cure* of a *diseased* bladder extremely precarious.

It were to be wished that Mr. Carpue had had favoured us with an account of the success of Dr. Souberbielle's practice in his new operation, but of this we are left in ignorance.

To Mr. Smith, of Bristol, we are much indebted for his laborious statistical inquiry into the frequency of stone in the bladder, given in the Medico-Chirurgical Transactions, in which he has related the result of practice in every part of the kingdom, and in no district has the success of operations been equal to that of Cheselden. Dr. Marcet, in his excellent treatise on calculous disorders, has given an average proportion of deaths through England from the lateral operation of stone, which he finds to be one in five; and mentioning the result of those performed in the Norwich Hospital as 1 in $7\frac{1}{4}$, he on the whole is accurate, but in an error when he ascribes the same success to *all* the surgeons who have succeeded each other, for they vary from 1 in $5\frac{1}{4}$ to 1 in 10. In the first years of my practice I was not very successful; and often witnessing many untoward circumstances in myself and others, which appeared to arise from the use of the cutting gorget, I determined to lay that instru-

ment aside, and employ the knife only, and the *blunt* gorget, as a conductor for the forceps; and as I have now so operated from the year 1804 to 1820 inclusive, a period of seventeen years, I shall subjoin the *name*, *age*, and *event* of each operation, with the weight of every stone, and it will be seen that in the seventeen years, eighty-four patients have been cut, ten of whom were private cases, and of this number only *two* died.

No.		Age.	When cut.	Cured.	Wt. of Stones.
1804.					
1	James Bennett	54	May 3.	1 month	1 oz. 2 drs.
2	Martin Benington	24	Sept. 22.	1 month	$\frac{1}{2}$ ounce.
3	Richard Bond	7	Nov. 1.	3 weeks	$2\frac{1}{2}$ drams.
1805.					
4	James Banyard	60	March 14.	1 month	$2\frac{1}{2}$ ounces.
5	John Hipkins	53	June 13.	5 weeks	5 scruples.
6	William Neave	66	June —	5 weeks	1 ounce.
7	Thomas Curson	66	June —	8 weeks	2 ounces.
8	Edw. Williamson	42	June 27.	8 weeks	6 drams.
9	James Woods	4	Aug. 1.	3 weeks	2 drams.
10	Frederick Smith	4	Aug. 15.	3 weeks	$1\frac{1}{2}$ dram.
11	William Osborn	$2\frac{1}{2}$	Oct. 18.	2 weeks	22 grains.
12	Samuel Haws	17	Nov. 28.	5 weeks	$\frac{1}{2}$ ounce.
1806.					
13	Rebecca Miller	56	May 28.	3 weeks	2 ozs. 2 drs.
14	William Wright	6	Oct. 2.	2 weeks	2drs. 10grs.
15	John Stebbings	5	Oct. 23.	3 weeks	2 drams.
16	<i>Master Smith*</i>	10	Dec. 10.	3 weeks	not weighed
17	Abraham Nunn	5	Dec. 18.	4 weeks	$\frac{1}{2}$ ounce.
1807.					
18	<i>Mr. Bell</i>	58	June 28.	5 weeks	not weighed

* The names printed in *Italics*, are those of private patients, amounting to ten in number.

No.		Age.	When cut.	Cured.	Wt. of Stones.
19	John Craske	11	Nov. 5.	6 weeks	2 scruples.
20	John Belyard	13	Dec. 24.	6 weeks	10 grains.
1808.					
21	John Fell	60	March 24.	6 weeks	$\frac{1}{2}$ ounce.
22	Thomas Spanton	30	April 26.	1 month	2 ounces.
23	Samuel Dybale	33	May 12.	5 weeks	Incrusted Bougie, 2 drs. 30 weeks in the bladder
24	William Rackham	32	July 21.	9 weeks	1 oz. 1 dr.
25	Peter Payne	3	Aug. 4.	2 weeks	2 drs. 1 scr.
26	Mrs. P.	45	Sept. 10.	not noted	
27	John Mace	4	Oct. 6.	4 weeks	2 drams.
28	Master Postle	9	Nov. 12.	not noted	
1809.					
29	Robert Goss	30	Jan. 19.	6 weeks	$1\frac{1}{2}$ ounce.
30	Robert Newrick	11	March 30.	1 month	$6\frac{1}{2}$ drams.
31	Samuel Todd	9	March —	5 weeks	$1\frac{1}{2}$ dram.
32	Thomas Day	20	Nov. 30.	6 weeks	1 ounce.
1810.					
33	William Beverly	7	March 1.	5 weeks	$2\frac{1}{2}$ drams.
34	Hannah Greyton	19	March 29.	2 weeks	1 dram.
35	Christopher Press	5	May 17.	2 weeks	$\frac{1}{2}$ dram.
36	Samuel Farrow	12	June 7.	2 weeks	$2\frac{1}{2}$ drams.
37	George Yallop	2	June —	1 week	1 dram.
38	Henry Howlett	$2\frac{1}{2}$	June 28.	2 weeks	1 dram.
39	Thomas Smith	70	July 19.	7 weeks	1 ounce.
40	John Rawling	6	Aug. 9.	3 weeks	$1\frac{1}{2}$ dram.
41	Mr. Page	36	Oct. 20.	cured *	
42	James Roe	60	Nov. 1.	7 weeks	1 oz. 5 drs.
43	William Payment	13	Dec. 20.	6 weeks	$\frac{1}{2}$ ounce.
1811.					
44	Mrs. —	48	April 12.	cured †	
45	William Cann	16	May 8.	3 weeks	few grains.
46	John Mann	29	Aug. 22.	6 weeks	$5\frac{1}{2}$ ounces.
47	Jemima Lands	23	Oct. 23.	2 weeks	3 drams.
48	Henry Howlett	$3\frac{1}{2}$	Sept. 12.	3 weeks	1 dr. 2d. time

* But not noted, being at a distance.

† But not noted.

No.		Age.	When cut.	Cured.	Wt. of Stones.
1812.					
49	William Howell	50	Jan. 24.	1 month	1 oz. 1 dr.
50	William Sallows	67	June 11.	died 26.	1½ dram.
51	James Crane	36	June —	2 weeks	½ dram.
52	William Moss	8	Dec. 31.	3 weeks	1½ dram.
1813.					
53	William Baxter	5	Feb. 4.	5 weeks	1 dram.
54	John Day	57	Sept. 9.	7 weeks	½ ounce.
1814.					
55	Elizabeth Burgess	4	May 5.	2 weeks	3 drams.
56	Abraham Byless	9	May —	2 weeks	5½ drams.
57	John Brett	54	June 16.	died 18.	4 ounces.
58	James Douglass	68	Oct. 5.	5 weeks	1½ ounce.
1815.					
59	Joel Isaac	41	June 8.	1 month	2 drams.
60	Nathaniel Miller	24	Oct. 5.	1 month	2 ozs. 5 drs.
61	Edward Rosier	65	Oct. 26.	9 weeks	½ dram.
1816.					
62	John Mitchell	23	Jan. 4.	5 weeks	a few grs.
63	William Notley	6	March 14.	3 weeks	2 drams.
64	Charles Hurrell	10	April 18.	2 weeks	1 oz. 1 dr.
65	John Jackson	60	May 9.	9 weeks	2drs. 10grs.
1817.					
66	Thomas Rivett	65	March 20.	1 month	½ ounce.
67	Robert Harrison	9	March —	5 weeks	2¼ drams.
68	Richard Brereton	11	June 12.	1 month	2 drams.
69	Edward Aldridge	26	July 3.	6 weeks	½ ounce.
70	Charles Laton, Esq.	74	Sept. 1.	5 weeks	1 ounce.
71	James Moore	4	Oct. 23.	3 weeks	1 dr. 10 grs.
1818.					
72	William Chapman	24	March 12.	3 weeks	2drs. 10grs.
73	John Rush	56	June 11.	5 weeks	1 ounce.
74	Joseph Everett.	19	Nov. 26.	4 weeks	1½ ounce.
1819.					
75	William Barnaby	80	Nov. 11.	4 weeks	4 ounces.
76	James Bowman	39	Nov. —	5 weeks	5 drams.
77	Thomas Ford	23	Nov. —	4 weeks	1 oz. 2 drs.
78	— Welham, Esq.	70	Nov. 5.	5 weeks	not noted
79	B. Walker, Esq.	60	Oct. —	4 weeks	6 drams.

No.		Age.	When cut.	Cured.	Wt. of Stones.
80	Samuel Lawns	60	Dec. 23.	4 weeks	1 dram.
	1820.				
81	James Mackley	21 $\frac{1}{2}$	June 22.	1 month	1 $\frac{1}{2}$ dram.
82	William Parish	6	Oct. 26.	1 month	$\frac{1}{2}$ dram.
83	Wm. Nightman	15	Dec. 7.	2 weeks	$\frac{1}{2}$ ounce.
84	Mr. Stebbing	65	Jan. 19.	8 weeks	not noted.

In this number, no selection of patients was made, as I never rejected any one who was brought for operation. The patients were always kept a week or two in the house before operating, which familiarized them to the objects around them, and I believe contributed greatly to remove fear, and that depression of spirits so unfavourable to their recovery. The diet has been regulated, and perhaps a dose or two of opening medicine given, but no other preparation.

In performing the operation, I have deviated very little from the directions given by Cheselden. The table on which the patient is placed is about two feet ten inches from the ground. I use a staff in which the groove is *much wider* and deeper than usual, and therefore more easily felt; and having passed it, and found the situation of the stone, I give it the assistant in nearly an upright and straight direction, and make my first incision long, deep, and nearly in a *line* with the raphe, which I think facilitates the re-union and cure. After the first incision, I look if the staff is not altered in its

situation, and then feeling for the groove, I introduce the point of the knife into it, as low down as I can, and cut the membranous part of the urethra, continuing my knife through the prostate into the bladder; when, instead of enlarging the wound downwards, and thus endangering the rectum, *I turn the edge of the blade towards the ischium*, and make a lateral enlargement of the wound in withdrawing the knife. I thus avoid cutting over and over again, which often does mischief, but can give no advantage over the two incisions, which I generally depend on, unless in very large subjects, where a little further dissecting may be required.

I now take the staff in my left hand, while I introduce the blunt gorget with my right, and by thus taking the management of the staff and gorget into my own hands, I can better direct the latter, and discover at once if it be slipping from the groove; but this will be prevented by depressing the gorget, while it is pushing on towards the bladder. On this depends very often the ease and success of the operation, for I have often seen it slip from the groove, and the operator has been baffled in getting into the bladder; when this occurs with the cutting gorget, still more danger follows. To perform this part of the operation with dexterity, I would recommend every young operator to practise the directing of the gorget in the groove of his staff, when he holds them in his hand, and he will perceive how easily the beak

may slip out, if the convex part of the staff be not familiar to his observation. It is of the greatest importance to observe, whether the assistant holding the staff, changes its direction; for I have often known an assistant so attentive to the operation, as to forget his own appointment, and draw the end of the staff out of the bladder.

After the gorget is in the bladder, I introduce my finger, and endeavour to feel the situation of the stone, which, if found, is a great advantage in the direction of the forceps to laying hold of it. I have never used any other than straight forceps, and it will be found more easy to extract a stone whole by rather large forceps, than with flat or small ones.

Should the stone be large, or there be any difficulty in the extraction, rather than use much force, while the forceps have a firm hold of the stone, I give the handles to an assistant, who is to draw them outwards, and upwards, while the part forming the stricture is cut, which is easily done, as the broad part of the blade becomes a director to the knife; and rather than lacerate, I have often repeated this enlargement of the inner wound, two or three times.

After the operation the slightest dressings are used, being nothing more than a piece of lint *over* the wound, and a pledget of tow, to exclude as

much as possible the admission of air, at all times aiming to heal the wound by the first intention, unless where any coagulum may be suspected, which may obstruct the flow of urine; which, if it occur, should be at once removed by passing the finger through it into the bladder, or introducing a female catheter. When much pain follows the operation, an opiate is given, and if tension should come on in the abdomen, fomentations, blisters, and opening the bowels will be useful; but I *never* found it requisite to bleed, and have known great mischief to succeed copious bleedings, as they have been followed by a debility never to be overcome. The effect of leeches I consider altogether useless; and I cannot help adding, that, notwithstanding their almost universal employment, they are seldom in *any case* of benefit, and always trifling, when substituted for general bleeding. For the first two or three days after the operation, I limit the patient to a mild diet, but if after that period no symptom of fever or inflammation appear, I allow a little meat, and mild beer. In general I believe it will be found in adults, that death follows oftener from exhaustion, after a tedious operation, or from despondency, in which the powers of life gradually decline, than from acute disease.

From Mr. Smith's statistical history of the disease, it is evident that it occurs more frequently in the district of Norfolk and Suffolk than in any

other in the united kingdom; and while it is curious to speculate on the cause of this frequency, hitherto all research has been met by disappointment. The disease is almost exclusively confined to the poor; and it appears frequently in infants, before diet can have much influence. The food of our poor is by no means bad, or sparing, and the people are generally remarkable for cleanliness. Whatever may be the diathesis giving rise to the formation of calculi, it is a remarkable fact, that after the extraction of a stone, scarcely a case occurs in which that condition of the constitution is not so changed, as to prevent the recurrence of the complaint; for a second operation is a rare occurrence, and I believe generally may be traced to a stone, being broken in a first operation, and some fragment remaining as a future nucleus. I would conclude with Dr. Marcet, and Dr. Prout, "that none of the circumstances commonly suspected to influence this disorder, can satisfactorily account for the variety of results, and that it arises from some general causes, independent of any peculiarities of food, or beverage, to which it has been usually ascribed."

Norwich, January 3, 1821.