OBSERVATIONS
ON THE
RECORDED CASES
OF
OPERATIONS FOR THE EXTRACTION OF
OVARIAN TUMOURS.

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THE attention of the profession, as well as of the public, has been so strongly directed to the question which it is now proposed to consider, that it has become necessary, calmly and dispassionately, to review the results hitherto attained by the performance of the operation ; and in order to afford some aid in coming to a right judgment, whether the extraction of ovarian tumours shall be classed amongst the benefits conferred by science upon man, I shall now bring before the Society all the information on the subject which I have been enabled to collect.

The opinion of any man, however eminent, pronounced without a careful estimate of the materials,

which have now become available to us, cannot, and ought not, to determine the question ; and the only means we have for arriving at a correct judgment, are, so far as I know, those furnished by the cases which will be hereafter described.

It is possible that the cases on record do not furnish us with the means of forming a correct estimate of the risk attendant upon the operation ; it is possible that while breathless haste has been shown to chronicle successful cases, culpable tardiness has been exhibited in bringing to light those which have been unsuccessful ; indeed, I shall use, in forming my tables, several cases, with which I am acquainted, which are not recorded, and which were nearly all unsuccessful. Still those cases constitute the best means we possess for determining upon the value of the operation. If the results which they present shall be deemed on the whole favourable, notwithstanding the magnitude and apparent danger of the operation, no authority, however weighty, can arrest the conclusions of actual experience. Whilst, if the cases we possess are sufficiently numerous, and the circumstances they present are sufficiently varied, to furnish materials for our judgment, and the results they exhibit shall induce the conclusion, that the benefits we might reasonably expect to obtain are unequal to the certain risks we incur, no prudent or safe practitioner will persevere in the operation.

And should the reasonable deduction from the past be this, that we require further data before we

can pronounce a positive opinion on these questions, the information I have collected may, at least, moderate exaggerated expectations on the one hand, and exaggerated fears on the other.

It has been the fate of some grave and dangerous operations, to be received into favour and admitted into practice from the moment they were proposed ; and of others, less grave and dangerous, to be assailed by great prejudice ; whilst those who have desired to afford them a fair trial have been exposed to censure and contumely ; in either case the results of the operation being disregarded.

In 1818, Mott placed a ligature around the *arteria innominata*, and the operation was unsuccessful ; and yet formidable as is the operation, and unvaried the failures in every instance, though performed by the ablest surgeons, it has been repeated twelve times, and still I have no doubt that men of the greatest eminence and most unquestionable skill would nevertheless resort to an operation the almost certain result of which would be death. The extraction of an ovarian tumour is much more simple, much less grave, than the ligature of the *innominata*, and yet by a large portion of the profession, and by some of the most celebrated of its members, it has been denounced as rash and imprudent. With a few exceptions it has not been performed by the more experienced and able surgeons either in this country or on the continent ; it has fallen into the hands of men less accustomed to perform great operations, and it may be not unrea-

sonably assumed less conversant with the after treatment which may be needful. Although performed many times in London, I believe it has been introduced into no other Hospital than Guy's, and even were its performance more frequently called for, and its success more decided, it would hardly be classed amongst the recognised operations of surgery until warranted by the experience of Hospital practice.

Extirpation of ovarian cysts, though frequently recommended during the last century as a remedy in extreme cases, seems not to have been actually practised before the year 1809. Before that time diseased ovaries had been extirpated when protruded in hernial tumours, by Pott and other surgeons; but it is only within the last few years that the operation of extraction has attracted much attention.

The following Tables exhibit the cases in which, so far as I know, the operation has been performed, and the results; and it is upon them that our decision as to the propriety or impropriety of this plan of treating ovarian tumours must at the present moment be based.

GENERAL LIST OF CASES.

Operator.	Age.	Operation.	State of Tumour.	Result.	Remarks.
Macdowall .	. . .	Large incision .	No adhesions .	Cure . .	Tumour mostly solid; weight, 6 lbs.
" .	. . .	Ditto	Ditto	Cure . .	Tumour was tapped before extraction; 15 lbs. evacuated.
" .	. . .	Ditto	Adhesions . .	Recovered	Both ovaries large and adherent; punctured, but not removed.
" .	. . .	Ditto		Death	
N. Smith .	33	Small incision .	Small adhesions .	Cure . .	Tumour punctured, and 8 pints removed before extraction.
Lizars .	27	Large incision .		Recovered	No tumour found.
" .	36	Ditto	No adhesions .	Cure . .	Ascites; ovarian tumour.
" .	25	Ditto	Strongly adherent	Death . .	Ovarian tumour; 7 lbs.
" .	34	Ditto		Recovered	Omental tumour, punctured; blood escaped.
Dohlhoff .	23	Small incision .	No adhesions .	Death . .	Tumour punctured; ascites, 46½ lbs.
" .	27	Large incision .	Strong adhesions	Death . .	Tumour not extracted.
" .	23	Incision 5 inches		Recovered	No tumour found.
Granville .	. . .	" 6½ "	Strong adhesions	Ditto . .	Tumour not removed.
Ehrhartstein.	36	Large incision .	No adhesions .	Cure . .	Tumour tapped before extraction, 26 lbs.; solid, 12 lbs.
Galenzowsky	27	Five inches . .	Adhesions . .	Recovered	Tumour not removed; cut into, and tent introduced.
Diefenbach.	40	Large incision .		Ditto . .	Tumour punctured, blood flowed; not removed.
Hopfer .	47	Ditto	Adherent . .	Death . .	Ascites, also.
" .	38	Ditto	Ditto	Cure . .	Malignant tumour, weighing 7 lbs.
Chrysmer .	38	Ditto	Adhesions . .	Death . .	Ascites and tumour.
" .	47	Ditto	Large adhesions	Death . .	Cartilaginous and lardaceous tumour.
Martini .	24	Ditto	Adhesions . .	Death . .	Several times tapped and injected; not removed.

Macdonald	.	Large incision	.	No adhesion	.	Cure	.	Tumour, 22½ lbs.
Chrissmann	.	Ditto	.	Ditto	.	Cure	.	Tumour, 8 lbs.
Jeaffreson	40	Small	.	Ditto	.	Cure	.	Twelve pints evacuated.
King	37	"	.	Ditto	.	Cure	.	Twenty-seven pints ditto.
"	.	"	.	.	.	Recovered	.	Omental tumour; no extraction.
"	40	7 or 8 inches	.	.	.	Ditto	.	No tumour.
West	45	Small incision	.	.	.	Cure	.	Twenty pints evacuated.
"	23	Ditto	.	.	.	Cure	.	Twenty-four pints ditto.
"	40	Ditto	.	Adhesions	.	Recovered	.	Not removed.
"	24	Ditto	.	.	.	Death	.	Eleven gallons removed.
Alban Smith	30	Medium	.	.	.	Cure	.	Tumour tapped before extraction.
Groth	.	Ditto	.	.	.	Death	.	Portion of fluid removed before extraction.
Stilling	22	6 inches	.	No adhesions	.	Death	.	Hæmorrhage.
Phillips	23	2½ inches	.	Ditto	.	Death	.	Three hundred and thirty ounces.
Clay	46	Large	.	Slight adhesions	.	Cure	.	Ascites, 7 pints; tumour, 17½ lbs.
"	57	"	.	Many adhesions	.	Cure	.	Tumour, 5 lbs.
"	39	"	.	Large adhesions	.	Cure	.	Tapped 5 days before operation.
"	47	"	.	Universal adhesion	.	Death	.	Operation not completed.
"	45	"	.	Large adhesions	.	Death	.	Hæmorrhage
"	40	Large incision	.	Strong adhesions	.	Death	.	Hæmorrhag; tumour, 26 lbs.
"	22	"	.	Adhesions	.	Cure	.	Tumour, 26 lbs.
"	40	"	.	No adhesions	.	Death	.	Tumour, 31 lbs.
"	43	"	.	Large adhesions	.	Cure	.	" 54 lbs.
"	59	"	.	Ditto	.	Cure	.	Hydatid cyst, 16 lbs.
"	45	"	.	.	.	Death	.	Tumour, 24 lbs.
"	58	"	.	.	.	Cure	.	" 28 lbs.
"	.	"	.	Large adhesions	.	Cure	.	Uterine tumour; uterus, except cervix and ovaries, removed.
"	49	Ditto	.	.	.	Death	.	

Operator.	Age.	Operation.	State of Tumour.	Result.	Remarks.
Walne . .	58	Large incision	No adhesions	Cure . .	Tumour, 16 lbs., nearly all fluid.
" . .	57	Ditto . .	Ditto . .	Cure . .	" 16½ lbs.
" . .	20	Ditto . .	Ditto . .	Cure . .	" 28 lbs.
" . .	54	Ditto . .	Adhesions .	Recovered	" not extracted.
" . .	45	Ditto . .	No adhesions	Death . .	" 14 lbs.; ascites.
Southern .	37	Ditto . .	Adhesions .	Cure . .	" and ascites.
Key . .	19	Ditto . .	No adhesions	Death . .	" 24 lbs.
Brans, Cooper	32	Ditto . .	Few adhesions	Death . .	" 32 lbs.
Greenhow .	29	Ditto . .	Adhesions .	Death . .	" solid, 12 lbs.
Rogers . .	20	Ditto . .	Ditto . .	Cure . .	" and ascites.
Bird . .	35	Small incision	No adhesions	Cure . .	" contained three gallons.
" . .	20	Ditto . .	Ditto . .	Cure . .	" contained a bucket full.
" . .	35	Medium . .	Considerable ditto	Cure . .	" gelatinous, 36 lbs.
" . .	20	Small . .	No adhesions	Cure . .	" contained a bucket full.
" . .	"	Ditto . .	Large adhesions .	Recovered	Incomplete extraction.
Lane . .	"	Incision 8 inches	Ditto . .	Cure . .	Tumour tapped a few days before.
" . .	44	" 7 "	Adhesions .	Cure . .	Part of tumour solid.
" . .	"	" "	Ditto . .	Cure . .	"
Morgan . .	"	Small incision	" . .	Death . .	Tumour not extracted.
Heath . .	46	Large incision	" . .	Death . .	Fibrous tumour of uterus.
Froriep . .	48	Ditto . .	Adhesions .	Death . .	Part of sac removed.
A. B. . .	"	Ditto . .	Ditto . .	Death . .	Not proceeded with.
C. D. . .	22	Small incision	" . .	Recovered	No tumour.
E. F. . .	"	Large incision	Adhesions .	Death . .	"

Operator.	Age.	Operation.	State of Tumour.	Result.	Remarks.
Ritter . .	31	Large incision .	No adhesions	Cure .	Ascites, 26 lbs. ; tumour, 12 lbs.
Quittenbaum } . .		Ditto		Cure.	
Atlee . .	25	Ditto	Adhesions	Cure .	Tumours of both ovaries extracted.
Warren . .	40		No adhesions	Death .	Tumour, 25 lbs.
Hargraves	40	Incision 2 inches		Death .	„ 25 lbs.
Granville .	30 & 40	Nine inches .		„ .	„ 8 lbs.
A. B. . .	. .	Large incision .		„	
Case in Gooch } . .		Six inches . .		Recovered	No tumour found.

Besides those cases there are two alluded to in the American edition of Gooch's Study of Medicine; but the account is too meagre to admit of our using them.

I have heard particulars of other five cases, of which at least three were unsuccessful, but I cannot venture to use them. As every honourable man should be equally ready to publish his unsuccessful as well as his successful cases, we may look for the authentic particulars hereafter.

The preceding Tables exhibit the results of eighty-one operations, performed for the purpose of extracting ovarian tumours. In sixty-one cases, the tumour was extracted; in fifteen cases, adhesions, or other circumstances, prevented its removal; in five instances no tumour was found. Of the cases

in which the operation was completed, the tumour being extracted, thirty-five terminated favourably ; the patient recovered : in twenty-six instances the termination was unfavourable ; the patient died. Of the five cases in which no tumour was discovered, all recovered.

Of the fifteen cases in which adhesions, or other circumstances, prevented the extraction of the tumour, nine recovered, six died.

The proper way, therefore, of looking at this plan of treatment, is to observe the number of cases submitted to operation, and the number of recoveries after the removal of the tumour. I conceive this to be the fair way, because, what has happened already is, in my judgment, likely to happen again. Adhesions may be too strong and extensive to make removal prudent ; the tumour may be other than ovarian, or it may be that no tumour can be found. Regarded in this light, it appears that the operation has been performed eighty-one times, and that in thirty-five instances the patient has recovered after the extirpation of the tumour. It is true, that forty-nine patients survived gastrotomy ; but many of them were subjected to such a painful and dangerous operation, on the one hand without necessity, and on the other without being disembarrassed of the disease.

Two different plans have been followed in the operation, and it is proper for us to ascertain whether there has been a corresponding difference in the results. In the one plan, the incision of the abdo-

minal parietes is sufficiently extensive to admit of the removal of the tumour entire,—often extending from the ensiform cartilage to the pubis. In the other plan, the incision has had the extent necessary for the removal of so much of the tumour as would not pass out through a puncture or incision made in it before extraction was attempted. If the tumour contains little or no solid matter, a puncture may cause the complete evacuation of the contents, and the cyst may be removed through a very small opening. In Mr. Jeaffreson's case, the opening into the abdomen did not much exceed an inch; in my own case, it was little more than two inches. I think the evacuation before extraction, and not the exact length of the incision, the important distinction between the two operations.

The cases in which the principle of extracting the tumour entire has been followed, the incision having an extent of six inches, or upwards, appear to amount to fifty-five; the instances of successful removal to twenty-three. The following list contains the particulars of them.

CASES IN WHICH A LARGE INCISION WAS EMPLOYED.

Operator.	Age.	Operation.	Result.	Remarks.
Macdowell . . .		No adhesions . .	Cure . .	Tumour mostly solid ; weight 6 lbs.
" . . .		Ditto	Ditto . .	Tumour was tapped before extraction ; 15 lbs. evacuated.
" . . .		Adhesions . .	Recovered	Both ovaries large and adherent ; not removed.
" . . .			Death . .	
Lizars . . .	27		Recovered	No tumour found.
" . . .	36	No adhesions . .	Cure . .	Ovarian tumour and ascites.
" . . .	25	Strong adhesions.	Death . .	Tumour weighed ; 7 lbs.
" . . .	34		Recovered	Omental tumour not removed.
Dohlhoff . .	27	Strong adhesions.	Death . .	Tumour not extracted.
Granville . .	"	Ditto	Recovered	" not removed.
Ehrhartstein	36	No adhesions . .	Cure . .	" tapped before extraction ; 26 lbs. solid, 12 lbs. fluid.
Dieffenbach .	40		Recovered	Tumour punctured, not removed.
Hopfer . . .	47	Adhesions . .	Death . .	Ascites and ovarian tumour.
" . . .	38	Ditto	Cure . .	Malignant tumour, weighing 7 lbs.
Chryssmer . .	38	Ditto	Death . .	Ascites and tumour.
" . . .	47	Large adhesions .	Death . .	Cartilaginous and lardaceous tumour.
Martini . . .	24	Adhesions . .	Death . .	Several times tapped and injected ; not removed.
Macdonald . .		No adhesions . .	Cure . .	Tumour weighed 22½ lbs.
Chrissmann .		Ditto	Cure . .	" " 8 lbs.
Stilling . . .		Ditto	Death . .	
Clay . . .	46	Slight adhesions .	Cure . .	Ascites, fluid 7 pints ; tumour, 17½ lbs.
" . . .	57	Many adhesions .	Cure . .	Tumour, 5 lbs.
" . . .	39	Large adhesions .	Cure . .	Tapped five days before operation.
" . . .	40	Ditto	Death . .	Hæmorrhage.
" . . .	22	Adhesions . .	Cure . .	Tumour, 26 lbs.
" . . .	40	No adhesions . .	Death . .	
" . . .	47	Large adhesions .	Death . .	Operation not completed
" . . .	43	Ditto	Cure . .	Tumour, 31 lbs.
" . . .	45	Ditto	Death . .	Hæmorrhage.
" . . .	59	Ditto	Death . .	Tumour, 54 lbs.
" . . .	45	Ditto	Cure . .	Hydatid tumour, 16 lbs.
" . . .	58	Ditto	Death . .	" " 24 "
" . . .		Ditto	Cure . .	" " 26 "

Operator.	Age.	Operation.	Result.	Remarks.
Clay . . .	49	Large adhesions .	Death . .	Uterine tumour; uterus, except cervix and ovaries, removed.
Walne . . .	58	No adhesions . .	Cure . .	Tumour, 16 lbs., nearly all fluid.
" . . .	57	"	Cure . .	" 16½ lbs.
" . . .	20	"	Cure . .	" 28 "
" . . .	54	Adhesions . . .	Recovered	" not extracted.
" . . .	45	No adhesions . .	Death . .	Ascites, and tumour of 14 lbs. weight.
Southam . .	37	Adhesions . . .	Cure . .	Tumour and ascites.
Key . . .	19	No adhesions . .	Death . .	Tumour, 24 lbs.
Brans. Cooper	32	Few adhesions .	Death . .	" 32 lbs.
Greenhow . .	29	Adhesions . . .	Death . .	" solid, 12 lbs.
Rogers . . .	20	Ditto	Cure . .	" and ascites.
Heath . . .	46	"	Death . .	Fibrous tumour of uterus
Froriep . . .	48	Adhesions . . .	Death . .	Part of sac removed.
A. B. . . .	" . . .	Ditto	Death . .	Not proceeded with.
E. F. . . .	" . . .	Ditto	Death . .	"
Ritter . . .	31	No adhesions . .	Cure . .	Tumour, 12 lbs.; ascites 26 lbs.
Quittenbaum	" . . .	"	Cure . .	"
Atlee . . .	25	Adhesions . . .	Cure . .	Tumours of both ovaries removed.
Warren . . .	40	No adhesions . .	Death . .	Tumour, 25 lbs.
Granville . .	30—40	"	Death . .	" 8 lbs.
G. H. . . .	" . . .	"	Death . .	"
Morris . . .	" . . .	"	Cure . .	"

Operations, 55.—Deaths, 26.—Cures, 23.—Recoveries, 6.

The cases in which the plan of procuring the evacuation of as much as was practicable of the contents of the tumour, before the extraction was attempted, amount to twenty-seven; the instances of success after removal to thirteen; the length of the incision was variable, but usually under six inches; they are enumerated hereafter.

CASES IN WHICH A SMALL INCISION WAS EMPLOYED.

Operator.	Age.	Operation.	Result.	Remarks.
N. Smith . .	33	Small adhesions .	Cure . .	Tumour punctured before extraction, 8 pints escaped.
Dohlhoff . .	23	No adhesions .	Death . .	Tumour punctured; ascites, 46½ lbs.
" . .	23	" . .	Recovered	No tumour found.
Galenzowsky .	27	Adhesions . .	Ditto . .	Tumour not removed; cut into, and tent introduced.
Jeaffreson . .	40	No adhesions .	Cure . .	Twelve pints evacuated.
King . . .	37	" . . .	Cure . .	Twenty-seven pints ditto
" . . .	" . . .	" . . .	Recovered	Omental tumour not extracted.
" . . .	40	" . . .	Ditto . .	No tumour.
West . . .	45	" . . .	Cure . .	Twenty pints evacuated.
" . . .	23	" . . .	Cure . .	Twenty-four pints ditto
" . . .	40	Adhesions . .	Recovered	Not removed
" . . .	24	" . . .	Death . .	Eleven gallons removed.
A. Smith . .	30	" . . .	Cure . .	Tumour tapped before extraction.
Groth . . .	" . . .	" . . .	Death . .	Portion of fluid removed before extraction.
Phillips . . .	23	No adhesions .	Death . .	330 ounces of fluid evacuated.
Bird . . .	35	Ditto . . .	Cure . .	Tumour contained three gallons.
" . . .	20	Ditto . . .	Cure . .	Tumour contained a bucket full.
" . . .	35	Many adhesions .	Cure . .	Tumour gelatinous, weighing 36 lbs.
" . . .	20	No adhesions .	Cure . .	Tumour contained a bucket full.
" . . .	" . . .	Adhesions . .	" . .	Mixed tumour, extraction complete.
Lane . . .	" . . .	" . . .	Cure . .	Tumour tapped a few days before.
" . . .	44	Adhesions . .	Cure . .	Part of tumour solid.
" . . .	" . . .	Ditto . . .	Cure . .	" . . .
Morgan . . .	" . . .	" . . .	Death . .	Tumour not extracted.
C. D. . . .	22	" . . .	Recovered	No tumour.
Hargraves . .	40	" . . .	Death . .	Tumour, 25 lbs.
Case in Gooch.	" . . .	" . . .	Recovered	No tumour found.

Operations, 27.—Deaths, 7.—Cures, 13.—Recoveries, 7.

Those different tables contain, so far as I know, the recorded cases in which an attempt was made to extract ovarian tumours, with their results.

Many interesting points for inquiry arise in the consideration of the cases already given; some of them we are in a condition to discuss, others must be left untouched, because the materials we possess for the purpose are too meagre. I shall confine myself to the following points, because they are, at the same time, of most practical importance, and of most easy solution.

First.—Can we determine, with certainty, whether a tumour be ovarian or not? If not, have the failures been so frequent as to constitute a reason why the operation should not be attempted?

Second.—Supposing a tumour to exist, and to be ovarian, can we ascertain the nature of its contents, as well as its connections? If not, have the failures been so many as to be an objection to the adoption of the operation at all?

Third.—Are the results of this plan of treatment sufficiently favourable to justify us in preferring extirpation to any other mode of treating ovarian tumours? And if so, what plan of operation promises most success?

It is not so easy as some persons imagine, to determine whether a tumour be ovarian or not. The state of menstruation, the condition of the mammæ, the features of the tumour, the age of the patient, have nothing certain about them, with reference to such tumours. Menstruation may be regular or

irregular, the mammæ may be flaccid, or tumid, the tumour, of itself, may give us no assistance; then, as to age, the tumour may be congenital (Meyer),—may be developed after fifty.

Assistance may be obtained from percussion, but the nature of the contents of the tumour may lessen the value of the information thus acquired; it may, however, do much to enable us to distinguish between ascites and an ovarian cyst, between a solid and fluid tumour. Auscultation may be found useful where there is a doubt of pregnancy; and yet, not long ago, Bricheteau related a case, in his Clinique, at the Hôpital Necker, where ovarian pregnancy was suspected, and the signs were deemed sufficient to justify an operation, but no trace of pregnancy was discovered, and the patient died on the sixth day. A proof of the uncertainty of the signs of ovarian tumour is furnished by the fact, that out of the eighty-one instances in which the operation for extirpation was attempted, five times, at least, the abdomen has been laid open, and no tumour discovered—and in six others the tumour was not ovarian.

NO TUMOUR FOUND.

Operator.	Age.	Operation.	Result.
Lizars .	27	Large incision . . .	Recovered.
Dohlhoff .	23	Five inches	„
King .	40	Seven or eight inches .	„
A. B. (Gooch)	24	Six inches	„
C. D. . .	22	Small incision . . .	„

Now, if this has happened during the time the operation is on its trial, when, it may be fairly presumed, that more than ordinary care is likely to be bestowed in the diagnosis, we are forced to the conclusion, that we do not possess the means of determining, with certainty, whether a supposed tumour be an ovarian cyst or not.

At the same time, I do not admit that the chances of error should be so large as is represented by the preceding tables. If I could believe that, in spite of every care in diagnosis, it was probable, that in one case out of every sixteen, the abdomen would be laid open, and no ovarian tumour found, it would constitute, in my mind, a very strong objection to the performance of the operation at all; still, it must be admitted, that in neither instance was this mistake fatal to the patient.

Hysterical or other tympanitis, or tumours of the omentum, have been the sources of error in the cases to which I have referred.

With reference to the second point for inquiry, we have no certain means of ascertaining the contents and connections of tumours presumed to be ovarian. In six instances, the abdomen has been laid open, and the tumour has been found to be either diseased omentum, or diseased or gravid uterus. Many times a presumed ovarian cyst has been punctured, and no fluid has escaped; the operation has been a "dry tapping." I have been present when an operation has been performed for the extraction of the cyst, where, although the exa-

mination was made by men of tried ability, who had no doubt of the contents being fluid, yet not a drop of fluid was contained in it—it was a stiff jelly.

With reference to connections or adhesions, the difficulties met with are still more formidable. In fifteen cases where the operation for extraction was commenced, it was found necessary to discontinue it, in consequence of the extent of the adhesions. In twenty-five other instances adhesions existed. Of the fifteen cases in which they caused the abandonment of the operation, six terminated fatally.

NO EXTRACTION.

Operator.	Age.	Operation.	State of Tumour.	Result.	Remarks.
Granville		Incision 6½ inch.	Strong adhesions —wound closed.	Recovered	
Galen- zowsky	27	„ 5 „	Adhesions . .	Ditto . .	Tumour cut into; 3 lbs. escaped; tent introduced; broken down by 70th day.
Dieffenbach	40	3 inches above umbilicus to within 4 inches of pubis.	Large base . .	Ditto . .	Tumour punctured; blood flowed.
Martini	24	9 inches . . .	Adherent to rectum.	Death . .	Several times tapped and injected.
Dohlhoff	27	2 inches above umbilicus to pubis.	Large adhesions	Death	
Lejars	34	Sternum to pubis		Recovered	Tumour of omentum and ovary; tumour punctured; blood escaped.
Walne	54	Large incision	Adhesions . .	Ditto	
King	..			Ditto . .	Omental tumour.
Clay	47	Large incision	Adhesions . .	Death . .	Tumour tapped; 2 pints of bloody fluid escaped.
West	40	Small incision	Ditto . . .	Recovered	
Morgan	..	Ditto . . .		Death	
Froriep	48	Large incision	Adhesions . .	Death . .	Part of sac removed.
Macdowell	..	Ditto . . .	Ditto . . .	Recovered	Both ovaries enlarged; tumour punctured.
A. B.	..			Death . .	Not proceeded with.
Bird	..		Adhesions . .	Recovered	Part solid.

This seems to me to be the pinching point of the case. I would admit, that a very careful and competent observer would not be likely to fail often, in his conclusions as to the existence or non-existence of a tumour, and as to its being ovarian or not; I would admit that he would not often fail in the determination of the contents, but I know no sure means of ascertaining whether there be extensive adhesions or not: in most cases, there are no physical signs by which we can determine this. It is not certain that we can, in ordinary cases, cause the abdominal parietes to glide over the surface of the tumour; in many cases, persons are deceived by the gliding of the superficial upon the deeper-seated layer of the abdominal walls, and if we could, it would only avail for its anterior surface. The crepitating sign pointed out by Dr. Bright is only present when the adhesions are recent; and as to the motion of the tumour with the diaphragm, considerable adhesions may exist without much interfering with it. An examination per vaginam would not set the question at rest. Our main reliance is therefore upon the signs of peritonitis—if the evidence be clear that peritoneal inflammation has existed, it is probable that adhesions are present; but we may find adhesions where there has been no reason to suspect peritonitis. Still extensive adhesions in the absence of symptoms of peritonitis are by no means common. It is then mainly upon this point that we must rely before proceeding to operation. I do not mean to say that it should determine the question,

but if the results are not such as to enable us to regard the operation with much confidence, that fact must have weight.

It is however true that if we compare the results of the whole cases with the results of the 40, in which adhesions were found, the result is not what might have been anticipated. Forty-seven of the eighty-one survived the operation, which is at the rate of fifty-eight per cent. Twenty-six of the forty survived, or sixty per cent.

It would seem then, judging from the materials before us, that the existence of adhesions does not lessen the chances of success, nor so far complicate it as to constitute a bar to its performance, if it be admitted to be a proper operation where no adhesions are present.

There remains for us to consider whether the results on record justify us in preferring extraction to any other plan of treatment, in cases of ovarian tumour. We assume that our diagnosis is correct, and that the case is one of ovarian cyst. The tumour is large, the inconvenience is great, and the necessity for relief urgent.

We know that the operation for extraction is one of a very serious nature, but have we any other means of cure to propose? Diuretics, purgatives, mercurials, compression, have been tried, and they have failed. We may advise the patient to try to bear her sufferings, and may tell her that there are cases where the tumour after acquiring great size has become stationary, and so remained, twenty,

forty, and even sixty or more years. She bears it a little longer, but soon finds that in her case it will not remain stationary. We may then say, let it get larger, there are cases in which the cyst has given way, the contents have escaped into the cavity of the peritoneum or elsewhere, and the patient has recovered. But this does not happen in the case of our patient, it is too much to expect that it should, there are not ten cases on record in which such a result has occurred. The patient's condition is become intolerable. The complaint has resisted medicine, has not remained stationary, the tumour has not burst, and relief must, if possible, be afforded. The propriety of an operation must now be considered. Will you advise tapping, or the more serious operation of extracting the cyst? When the tumour is fluid, immediate relief may be obtained by tapping, and it may be that the cyst will not fill again; but that is a very rare occurrence, and we have no right to expect it. It may fill so slowly, that years will pass before it attains a great size; but the usual result is to find the cyst fill again in a few weeks, and thus render a second tapping necessary; again and again the necessity for relief recurs, the interval between the operations becomes less and less, the span of life more and more contracted, and the patient dies, worn out; the average duration of life, from the first tapping, not exceeding four years. It may be, too, that the operation of tapping will prove fatal—it has done so many times, although not so frequently as to make

it probable in a particular case. The aspect in which the question should therefore be ultimately regarded is this ; the circumstances are so pressing that relief must be afforded, and as all other means have failed, it must be by an operation. Tapping is usually a successful operation, so far, at least, as to afford immediate relief ; and in an ordinary case, the patient may reasonably expect to live four or five years, not in comfort, it is true, but requiring relief, three or four times, it may be, in a year. Extraction, though not a very painful, is a dangerous operation : the experience we possess justifies us in the expectation that in forty-four cases out of one hundred, the tumour may be extracted, and life saved ; but at the same time it cannot be concealed that out of the eighty-one operations to which we have referred, thirty-two died, and that soon—in fact, in a few days.

Whether these results justify a medical man in recommending a patient to submit to the operation, is a question which will probably be decided differently by different men—perhaps in neither case upon the merits.

It is said you are not justified in advising the patient to undergo such an operation, when relief can be obtained by tapping ; but if we look at the results of tapping, all that we can promise is, that probably the patient's life may be extended four years. Let us suppose a parallel case. A patient has an aneurismal tumour in the axilla. No one would deny that under careful treatment he might live

without operation four years, and yet it is probable that few surgeons would be found who would not advise the patient to submit to the ligature of the subclavian, which would not succeed in a greater proportion of cases than the extraction of the ovarian tumour.

It is true that the circumstance which has been regarded with most apprehension in connection with this operation, namely *peritonitis*, occurs less frequently than would reasonably have been expected from the magnitude of the injury done to it. Still it is to be hoped that that fact will not encourage any man to undertake the extraction of an ovarian cyst heedlessly, or to make an incision of twelve inches, when, by a little modification in the operation, one of four inches might be found equally convenient for the purposes of extraction.

There is still another point which must not be lost sight of—in many cases where disease affects one ovary to a large extent, it affects the other, though to a smaller extent. It is possible that when the disease is removed from one ovary, the nutritive action which was previously directed upon it may afterwards be concentrated on the remaining point, and cause its rapid development. Of this possible tendency we have no practical proof at present.

If the results already stated should be held to justify the performance of the operation of extraction in cases of ovarian tumours, it is incumbent upon us to select the operation which is least painful and perilous to the patient. It must be borne

in mind that the plan of making such an incision as would admit of the extraction entire was employed in fifty-five cases, and that the recoveries after extraction amount to twenty-three, cases. The plan of making such an incision as would admit of the extraction, when as much as possible of the contents of the tumour were removed, was followed in twenty-seven cases, of which thirteen recovered after extraction. The proportion of recoveries being in the one case forty-two, and in the other forty-eight per cent. My own observation of the smaller incision is much more favourable ; the operations being six, the successful cases five. It is evident, therefore, that the preponderance of success is considerably in favour of what is termed the minor operation. It cannot, however, be denied that cases may occur where from particular circumstances it may become necessary to enlarge the incision. The contents of the tumour may be different to what was anticipated—may be nearly solid, although supposed to be fluid ; and it may be that a previously undetected solid mass may exist, rendering it expedient to enlarge the opening ; still that circumstance does not in any way militate against the plan of making as small an incision as is consistent with the easy removal of an emptied cyst, provided it be large enough for the convenient application of the ligature around the pedicle. But as doubts may still exist in the minds of some men, whether, on the one hand, the operation should be undertaken at all—on the other, whether the major or minor operation should be preferred,

I am induced to bring the subject before this Society in the hope that it will be calmly considered by practical men ; and if it be once fairly discussed here, that circumstance will exercise a useful influence in determining whether it shall be a recognised operation in British surgery or not.

Upon questions like the present it is, I conceive, the peculiar duty of those whose experience and position must give weight to their opinions, to share in the responsibility of counselling and advising their less experienced brethren. By combining the caution and practical sagacity of our elder associates with the energy, confidence, and hopefulness of the younger members, we shall correct the deficiencies of each, and secure for the public the benefit of the matured judgment of both. Let us act on the advice of the great master of modern philosophy, and whilst standing on the ancient ways, regard both, and choose that which is best.

In Paris, we find that whilst every important subject is brought before the Academy of Medicine for discussion, the most experienced members consider it a duty to be present, (as in the late discussion on fibrous tumours of the breast,) and to afford the advantages of their experience as a valuable aid to the formation of correct opinions.

It has been well said that things will have their agitation, and if they be not tossed upon the arguments of counsel, they will be tossed on the waves of fortune, and be full of inconstancy, doing and undoing, like the reeling of a drunken man.

The marks of ill counsel, we are told, are young for the person and violent for the matter ; and may not those who fill this room, eager to learn from those who can best teach, reasonably complain if the highly-gifted, the long-experienced, and the more distinguished members of this Society, those on whom the world of science has set the seal of approbation, refuse to assume that share of responsibility which high reputation imposes upon its possessor ?