tained in the battle of life; the greater amount of the *commoda vitæ*; may all tend to increase the susceptibility of the nervous system, and to impair its resisting power." If, now, we refer to the forty-second annual report, we find that the annual average increase in the mortality from nervous diseases for the decennium 1860-69 was 580, while that for the decennium 1870-79 was 790, or an increment of 36 per cent. in the last ten years. Against this, however, there is the statement in the preface of the forty-third annual report, that the mortality from nervous diseases per 1,000,000 persons in the year 1880 was the lowest on record. It may be for the present there is a lull in this particular mortality; but it is observable, that this record only applies to deaths which have directly resulted from diseases of the nervous system. It obviously takes no account of the deaths from other diseases, the origin and fatality of which have a direct bearing in connection with persons in whom nerve-power is deficient and depraved. And this, taken in conjunction with the fact that the transmission of a neurosial temperament from parent to offspring is apparently sufficiently common in the present day, attaches to the consideration of nervous diseases an importance of no small degree.

"Nervous" patients, so called, usually beget "nervous" children, and the inheritance of the latter usually accompanies them throughout life, unless, indeed, by some means or other, they gradually cease to be less susceptible to its effects. It is conceivable, then, that with a nervous system, the equilibrium of which is easily disturbed, there must be in persons of either sex a greater proneness to exhibit on certain occasions unequivocal results of nerve-disturbances; in other words, a sensitive nervous system augments the predisposition to the production of nerve-disorders, increases the liability to the origination of neurosial effects when any perversion of nerve-power arises, and confers upon disease, when it occurs, a character indicative of the prevailing temperament, by intensifying more especially the subjective symptoms. The late Charles Moore, whose invaluable researches into the subject of cancer threw a flood of light upon the disease, was attracted in 1865 by the rate of increase in the mortality of cancer as prevalent then. He believed that it was owing to the well-being of the nation, and ascribed it to corn laws, good living, to the discoveries of gold, and sanitary improvements. Now a disease such as cancer, which is characteristic of the healthy, may be expected to abound amid conditions of health. Probably, then, its prevalence is greater amongst the rich than amongst the poor. According to Marc d'Espine, this is the case, for whilst in the wealthy classes the proportion of cancer is about 106 in 1000, in the poor classes it is 72 in 1000; or at the rate in the former case of 10.6 per cent., and in the latter of 7.2 per cent.

It has been observed that cancer is more frequent amongst the carnivora than amongst the herbivora. But the means of obtaining data upon this point are so meagre and uncertain, that it has been found impossible to formulate a satisfactory statement. In answer to a letter which I addressed to Mr. Forbes, of the Zoological Gardens, he states that, according to his experience carcinoma is not a common disease in animals in the Gardens, of any class. It is, perhaps, nearer the truth, then, to believe that, whilst occasionally carcinoma may appear in the carnivora, the occurrence of the disease in the herbivora is so rare as to be practically unknown. Dr. Crisp, however, stated in the discussion upon cancer at the Pathological Society, that carcinoma is not at all an uncommon disease amongst the domesticated animals; whilst in wild animals and uncivilised man it is rare; and in 230 of the quadrupeds which he had examined, there were no traces of cancer. Mr. Haviland, in 1879, read a paper at the Society of Arts, on the "Distribution of Disease Popularly Considered," in which he stated that the mortality from cancer is highest in those districts which skirt the banks of the rivers of our country, which are seasonably flooded; that the Thames flows through a vast cancer-field; that there does not exist an important river, subject to seasonal flooding, that does not flow through high mortality districts; and he attributes the large mortality to the geographical, together with the climatic-surroundings of the rivers in question. It seems to us, however, that there is some fallacy in supposing this to be the case. It cannot be denied that the death-rate from cancer stands high in the propinquity of certain rivers, but this, we imagine, is for the most part due to the aggregation of towns along their course. If, however, the flooding of rivers were distinctly connected with a high cancer mortality, the record of the rain-fall for the year would probably indicate whether we might expect an increment or a diminution in the mortality from the disease. But a reference to this subject fails to yield any information in support of Mr. Haviland's hypothesis; for whereas, in the eight years between 1872 and 1879, inclusive, the annual rainfall varied between 20.0 in 1874, and 31.3 in 1879, the

mortality from cancer shows an actual increase of 2806, or an annual average increase of 350. The comparison, however, between the rainfall for the years we have mentioned, and the mortality from cancer, is so marked, that we append the records of both in the following table—

	Rainfall.	Deaths from Cancer.
1872	30.0	9.993
1873	23.4	10.455
1874	20.0	11.011
1875	28.2	11.414
1876	24.2	11.604
1877	26.9	12.122
1878	29.2	12.664
1879	31.3	12.999

As the seasonal flooding of a river could hardly occur without a due proportion of rain, and as, in spite of the variability of the rain-falls, the increase in the cancer returns, as the table indicates, is year by year maintained, it is conceivable that Mr. Haviland's suggestion, ingenious and interesting though it is, requires further confirmation. Again, analogy would lead us to expect a higher mortality from cancer in the centres of population than in the country. The inquiries, however, made into this subject by several observers, have for the most part shown that this is not the case, and that the disease is not more prevalent among those who reside in towns, than compared with the inhabitants of country districts. The Thames may, nevertheless, be an exception to the rule, considering the enormous population which lives along its course. At any rate, let us hope that, if not this, at least some other and more tangible reason may account for the high cancer-mortality with causing which the river is credited; and that, after all, the Thames itself does not possess a subtle malignity, which, although unproven as it is, nevertheless causes us to look askance with some misgiving when enjoying the apparent innocence of its surroundings between the locks on its course. It is not improbable that the natural mortality from cancer in large towns with hospitals, and notably London, is exaggerated by the immigration of many advanced and hopeless cases which originated elsewhere, as Moore has suggested; and it is necessary, therefore, to take this circumstance into consideration when assigning a special cancer-mortality to a particular district.

Now, the evidence contained in the Registrar-General's Reports, conclusive as we believe it to be of the real increase of cancer, enables us also to determine that this increase is chiefly confined to a period of life commencing at early middle age (thirty-five), and terminating at the seventh decade. We do not find, on referring to the tables showing the mortality from cancer at different ages, that the disease has increased during early life. Speaking generally, we may say that the death-rate from cancer, especially during the first quinquennium, has for many years been constant.

[To be continued.]

A SERIES OF ABDOMINAL SECTIONS, PERFORMED DURING 1882.*

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THE following remarks are based upon the work, and the experience obtained from it, which occurred in my practice during the year 1882.

The cases, classified into a table, are as follows:

Operations and Disease.	Cases.	Deaths.	Operations and Disease.	Cases.	Deaths.
Exploratory Incisions.....	3		For chronic ovaritis.....	14	2
Operations for cystoma, 33			" pelvic deformity	1	1
One ovary	15		Removal of myoma	1	1
Both ovaries	10	1	Hysterectomy (Porro's operation)	1	
Parovarian cyst	4		Fibro-cystic tumour.....	2	1
Hydrosalpinx	1		Hæmatocele	1	
Pyosalpinx	3	1	Peritonitis	5	
Removal of uterine appendages, 22			Disease of liver	1	1
For myoma.....	7		Tumour of kidney	1	1

Making a total of 70 abdominal sections, with 7 deaths. Of the patients, 49 were married, and 21 were single.

* Read before the Birmingham and Midland Counties Branch.

There is always, more or less, a difficulty in arranging a series of cases which possess so many features, utterly dissimilar, as are present in abdominal sections; and, in like manner, it seems equally absurd to place together operations of such varying danger and difficulty of performance, even though they are called by the same name. Hence it is that statistics of nearly all operations, but especially of abdominal ones, will be of comparatively little value, because operations are grouped together which have very little in common, both as to ease of performance and prognosis. Take a case of simple parovarian tumour; here we often have the simplest operation imaginable, with a prospect of recovery as almost certain as possible; and then take a case similar to one which occurred to me the other day, where the omentum was largely adherent to the tumour, and so also were eight inches of intestine, which, after separation, bled so profusely from its free convex surface that the vessels had to be stopped by pressure forceps and the actual cautery. Surely, though both these cases recovered, they ought scarcely to be tabulated together, because they have, as in the past, both been called ovariectomies. They are as unlike as possible; the first would have done well under any surgeon's hands, and the latter was one to try the resources of the most experienced operator.

I think Keith struck a true note on this subject, a few weeks ago, when he wrote as follows: "I am sick of ovariectomy statistics. . . . It is little to me whether my results are better or worse than those of others; it is much to me if I have a single death after an operation, except what may arise from some accidental or unforeseen cause;" and, indeed, whatever may be thought generally of statistics, they are, in my opinion, of little real value, except to the operator himself, and those who have witnessed all the cases which make up a given table.

The three exploratory incisions comprised a case of malignant tumour of the uterus, a myoma, which was incapable of removal or of allowing the appendages to be reached, and a case of chronic ovaritis, in which the ovaries were so shrivelled and, with the tubes, so adherent, as to render it impossible to remove them.

In one case, there was what I looked upon as a transplanted cyst; there was present a small ovarian tumour, about the size of an ordinary orange; it was very adherent, and, in separating it, the fluid escaped into the pelvis. The separation was continued, and it at length came out bodily through the wound, showing no sign of a pedicle. There was some little oozing at the bottom of the pelvis, but, with drainage, the patient did well. That this was an ovarian cystoma was shown by the character of the escaping fluid, and by the presence of a number of small secondary cysts in the wall of the one removed.

In one of the cases of ovarian cyst, operated upon in March, there was present a larger cyst in the inferior layer of the mesocolon, close to its left bend. It was filled with dark fluid, and a quantity of friable fibrinous (?) matter. The nature of this tumour is quite unknown to me. Two drainage-tubes were here inserted—one into the pelvis, and one into the collapsed cyst in the mesentery.

One patient had been tapped thirteen times before coming under observation; here there were no adhesions to the abdominal wall at the seats of puncture, but the pedicle was very long and quite cord-like, and a partial transplantation had taken place to the omentum, causing most extensive hæmorrhage on its separation.

I would very strongly urge the importance of resorting early to operations for removal of ovarian cysts—earlier than is often the case at present. Twelve years ago, it was nearly always thought best to wait until the patient was so worn down by the disease as to be on the brink of the grave. It is surely in accordance with common sense that, the smaller the tumour, and the earlier its removal is performed, the less difficulty and danger there will be. If such a practice were more frequently pursued, intestinal adhesions, twisted pedicle, peritonitis, and suppurating cysts, would be rarely met with.

Of the parovarian tumours, one was gangrenous, with a twisted pedicle, and it was accompanied by pregnancy in the fifth month. The placenta and fœtus came away ten hours after the operation, but the recovery was uninterrupted.

The treatment of certain cases of myoma by hysterectomy was, a few years ago, beginning to be practised; but it gave way, to some extent, to that by removal of the uterine appendages. Although my success in hysterectomy at that time was very good, I have practised the removal of the appendages; but I think now that most good will be found, speaking generally, to follow the removal of the whole mass, when practicable; and results, quite equal to the ovariectomy of ten years ago, may be expected. One of the cases in this series had the appendages removed by me last March. She was not really

any better for it, though her tumour, I believe, has not since grown, which it had been doing up to the time I operated. Within the last few weeks, she has been in the Samaritan Hospital, under the care of Dr. Bantock, who has successfully performed hysterectomy on her. In the future, I shall, if at all practicable, prefer the major operation. With the clamp and the extra precautions of to-day, compared with formerly, these operations will be very successful. It would seem to be the case, that removal of the appendages is more likely to be of real benefit in arresting the growth of the tumour, and in preventing the hæmorrhage, in cases of bleeding myoma; and that it is not of the same value in the soft so-called cedematous tumours. For these latter, unquestionably, where practicable, complete removal is the operation indicated.

Only one such case was done by me last year, viz., the one which included "Porro's operation," published in the *BRITISH MEDICAL JOURNAL*, September 2nd, 1882; and here I would say that, by the adoption of this modification of the Cæsarean section, there need be but little fear of the result, if, in such cases requiring this proceeding, the patient be placed under operation in good time, before she is exhausted and injured by the fruitless efforts at delivery. This is the second recorded case of Porro's operation which has been successfully performed in England; the first was performed the day before by Mr. Knowsley Thornton, in the Samaritan Hospital.

My observation up to now has not led me to associate a cystic, an enlarged, or other condition of the ovaries as specially associated with the development of a myoma in the uterus.

In four of the cases of chronic ovaritis, the ovaries, after removal, were much larger than normal, and weighed:

	Right.		Left.
1.	250 grains.		130 grains.
2.	148 "		148 "
3.	230 "		100 "
4.	120 "		110 "
Average	187 "		122 "

Recently, each of the appendages weighed, after removal, 360 grains. In such cases, the adhesions are very firm, and are, in my opinion, among the most difficult operations in abdominal surgery. Especially is this the case if the Fallopian tubes be, in addition distended with either serum or pus; in the latter case, there is always the fear of rupture occurring in extraction, with escape of the purulent contents into the pelvis, which, of course, must constitute an additional source of danger. The difficulties encountered in such cases are quite equal to, and tax the surgeon's resources as much as, those of the worst ovariectomies; and there is as much difference between such a case and the operation of oophorectomy, so-called, or the removal of the normal ovaries, as there is between a very complicated ovariectomy and the removal of a simple parovarian cyst.

Of the six operations for peritonitis, the disease was subacute, and had been in existence for a considerable time without getting beyond a certain stage towards recovery. There was found, when the abdomen was opened, the condition described by Dr. Matthews Duncan as "serous perimetritis." The quantity of fluid varied from a very little to a considerable quantity; this was carefully sponged out; and, in every instance, the patient progressed favourably, and, I believe, each one was quickly cured by the operation.

Of the two fibro-cystic tumours, in one, the stump was thick, and I ligatured it, dropping it into the pelvis. This proved fatal; and I now think that, if I had used a clamp, the result might have been different. In the second case, which occurred in the Kidderminster Infirmary, suppuration had occurred, and the cyst burst in extracting it, spreading all over the abdominal cavity. Two drainage-tubes were inserted, one into the collapsed cyst, and one into the peritoneum. This patient did well.

In the case which proved fatal after the removal of double pyosalpinx, death occurred on the twenty-third day. The patient was quite well up to within four days of her death, when symptoms of acute intestinal obstruction set in, due to mechanical causes produced by previous adhesions within the pelvis. A drainage-tube had been used at the operation. The danger of not operating in these cases lies in the liability of rupture occurring; an accident, in my opinion, not a very remote one. Is it not possible that many of the instances of rapidly fatal peritonitis are due to such rupture? The more frequent recourse to abdominal section has brought about a knowledge of the fact that an attack of so-called "inflammation of the bowels" is often something very definite and tangible in the pelvis. If the attacks recur from time to time, we may often predicate a condition of things which is capable of removal by opera-

tion. I would go so far as to say that, if the patient be suffering from recurring attacks of this so-called inflammation, it will be not only justifiable, but the best practice, to make an exploratory incision, and remove the cause of the trouble, or whatever may be found necessary. Doubtless, many of the cases which are classed as chronic ovaritis are, in reality, at first attacks of pelvic peritonitis, which results in adherent ovary, adherent tube, and the consequent loss of the normal relation between the tube and ovary. Hence the acquired sterility so frequently observed.

The case of disease of liver was in a man to whom I was called, with a view of giving relief by surgical means. There had been a previous history of biliary colic and jaundice, and, with considerable enlargement and a raised temperature, his medical attendants feared the presence of pus. A small incision was made, and the liver was punctured by the aspirator-needle, but it was found to be quite solid. Recovery from this operation quickly followed; and, when the patient died, about eleven weeks afterwards, there was found no trace of cavity or fluid, but very many of the hepatic ducts were filled with black concretions, the gall-bladder being empty.

The tumour of kidney was in a woman, who was very greatly reduced when she came into the hospital. A small exploratory incision was made, and the tumour punctured with the aspirator-needle. It appeared to be quite solid. The patient could not bear even this simple proceeding, and died in about twenty-two hours afterwards. There was found to be an abscess in the substance of the tumour, which proceeded from the right kidney.

During the latter half of the year, I discontinued the use of the spray, and the results obtained were not noticeably different from what had occurred when extreme Listerism was observed. The number of cases is too small to be of any statistical value, but I trust in the future to give a reliable record in this matter. Certainly the cases since I omitted the spray have been of quite, if not more than, the average difficulty and danger. In all these operations, the same care and caution were observed as to cleanliness and the prevention of any putrefactive elements from outside coming into contact with the patient, the spray only excepted, as if Listerism were being practised. To Lister, most of the success attending such cleanliness is, in my opinion, due. Compare a non-Listerian operation of to-day with the manner in which the same was performed ten or a dozen years ago.

In twelve out of the seventy cases, drainage was used. This seems a large number, and an ardent observer of Lister would say that it would not have been necessary in nearly this number of times, if stricter precautions had been used. Of course, drainage is to be looked upon as only another means of preventing the retention of putrefactive elements in the body. One reason for my having used the drainage-tube so frequently may, I think, be that, having been for some years an ardent disciple, perhaps an enthusiastic one of Lister, I have been afraid at once, on suddenly discarding what I have been regarding as a sheet-anchor, to close up a wound where I expected there to be more oozing than I believed to be safe. In regard to the use of the drainage-tube, some judicious management is required. When the discharge from the syringe, having been for some hours fairly copious, suddenly ceases to come up, septicæmia may develop in consequence. This condition arises from the bottom or the openings in the side of the tube becoming blocked up, and should be obviated by withdrawing the tube, and, after cleansing, reinserting it, or placing a smaller tube in its place. I have a strong suspicion that one of my deaths, in the two of chronic ovaritis, was to be attributed to want of care in this matter.

It is very remarkable how soon the tube makes for itself a passage surrounded by lymph; and this passage appears also very quickly shut off from the general cavity of the peritoneum. Very probably, as time goes on, I shall drain less frequently, but I shall never hesitate to do so if there be any doubt. The Listerists consider draining to be much less frequently necessary, and perhaps it is so; but I have not yet been able to shake off a feeling of the necessity for frequent draining if the spray is not used.

Using the two words in their fullest sense, it would almost seem that we may be confident of our patient's recovery if we will keep her peritoneum "clean and dry." This is the practical position of affairs for us as surgeons, although we know that in reality a considerable amount of exudation, and even of blood sometimes, must be effused in many cases, and absorption will follow, with subsequent recovery.

Of the seven deaths, three were patients in whom drainage was practised. One died on the twenty-third day from obstruction of the bowels; one from what I cannot help thinking imperfect management of the tube, the fluid, from being copious, suddenly ceasing

to flow; and the third death I could not discover why it occurred; the case was the removal of a myoma with adherent intestine, which had to be stitched up.

At one time, a good deal of importance was attached to performing abdominal, and, indeed, all operations in the pelvis after, rather than before, the monthly period, when the menstrual cycle is on the ebb rather than on the flow. I have of late not regarded this, and, in some instances, have found that menstruation has come on the day before, or even the morning of the operation. No ill results have, however, followed the performance of the operation.

ALBUMINURIC RETINITIS OF PREGNANCY.

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THIS subject, which has been very briefly introduced by Mr. Salter in the JOURNAL for February 24th, 1883, is one of considerable interest, and one that has been but little noticed in ophthalmic or general medical literature. I propose, therefore, to report a few cases which have come under observation.

CASE I.—S. W., aged 25, was first seen March 4th, 1878. She first noticed her sight bad and eyelids puffed eight weeks ago, *i.e.*, three weeks before her first confinement. She had no pain nor headache. Vision: right eye, 18 $\frac{1}{2}$; left, 16 $\frac{1}{2}$. The pupils were wide. Ophthalmoscopic appearance: right eye, the disc was pale, with fairly defined margins; the veins were slightly distended. There were numerous exudative white patches all round the disc, and extending into the region of the yellow spot. Left eye, the margins of the disc were not so well defined; the patches were far more numerous and larger in size, especially around the yellow spot, where two or three small hæmorrhages could be detected. The urine was pale, specific gravity 1017, highly albuminous. This patient never came again, and the address given was inaccurate.

CASE II.—L. T., aged 38, soldier's wife, was first seen April 26th, 1878. She had four children living, and had had four miscarriages, the last a fortnight ago. There was a large quantity of albumen in the urine. Vision: right eye, 1 $\frac{1}{2}$ with + 30 = 1 $\frac{1}{2}$; left, 4 $\frac{1}{2}$; no glass improved. Ophthalmoscopic appearances: in both eyes were numerous glistening white patches around the yellow spots, and scattered over the retina, and also hæmorrhagic patches. June 4th, 1878, she was considerably improved in health, but the urine still contained a quantity of albumen.

CASE III.—H. E., aged 37, was first seen May 3rd, 1878; has had five children; the last was born last February. During her last pregnancy, she had very bad health, and suffered a good deal of pain in the loins and back. She suffered greatly from thirst, and had to micturate very frequently. Her sight was also very bad. At the above date, the vision was: right, 1 $\frac{1}{2}$; left, 19 $\frac{1}{2}$. Ophthalmoscopic appearances: the right eye was normal; left, there were glistening white patches around the yellow spot. There was abundant albumen in the urine. The heart was normal. She was ordered tincture of perchloride of iron.

December 5th, 1881. Vision: right, 6 $\frac{1}{2}$ with + 24 = $\frac{1}{2}$ with + 18 = 1; left, 16 $\frac{1}{2}$ with + 18 = 14 letters. There was no albumen in the urine.

September 16th, 1882. The vision in the right eye was the same as left, with + 14 = 10. With the ophthalmoscope, I could not detect any exudation or patches over the left macula. The optic nerve was a little paler than the right. There was no albumen in the urine.

CASE IV.—A. G., aged 32, was first seen September 27th, 1881. The left eye had been lost from an old accident. The right eye had been very good up to the last three weeks. She had complained of dimness; she said she saw everything foggy and misty. Vision: right eye, 1 $\frac{1}{2}$ *vis*. The ophthalmoscope showed numerous exudations and punctiform hæmorrhages around the macula. Albumen was present in the urine. She expected her confinement in about three weeks.

October 14th, 1881. She was confined; had an easy labour. The child was puny, and only lived fifteen days.

November 22nd, 1881. Vision in the right eye, 1 $\frac{1}{2}$. Nearly all the exudations and hæmorrhages had disappeared, and only a very small trace of albumen could be detected.

CASE V.—E. W., aged 25, was first seen November 30th, 1880. She had been married three years, and had one little girl aged 2; she had a still-born babe nine months ago. She said that, up to two months ago, she was in good health. She noticed she was pregnant; she