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.

By A. EMRYS-JONES, M.D.,
Surgeon to the Royal Eye Hospital, Manchester.

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

was very sick in the morning, and vomited a good deal. She expected to be confined in two months. There was no pain in her eyes. Vision: right eye, 20 $\frac{3}{4}$; left, 20 $\frac{3}{4}$. The ophthalmoscope showed numerous exudations and hæmorrhages over both retinæ. There was a large quantity of albumen in the urine. I have heard since that the confinement was normal, and that her sight improved.

CASE VI.—M. H., aged 43, was first seen November 25th, 1881. She had had four children, one living. Last August, she felt the usual symptoms of pregnancy, and, a short time afterwards, a dimness of vision. Vision: right eye, 16 $\frac{1}{2}$; left, 16 $\frac{1}{2}$. The ophthalmoscope showed optic neuritis, with well-marked exudations and hæmorrhages. There was abundant albumen in the urine. The last report I heard was, that she was better.

CASE VII.—E. J., aged 29, was first seen May 2nd, 1881. She had been married seven years; her first child was born six years ago, still-born; the next and only child, born two months ago, lived only two days. She had had no miscarriages. Vision failed a week before confinement. When seen, it was, in the right eye, 10 $\frac{1}{2}$; in the left, 10 $\frac{1}{2}$. No glass improved for distance. The ophthalmoscope showed numerous glistening patches and hæmorrhages around the macula in both eyes. The urine was slightly albuminous, of specific gravity 1025. Lithates were abundant. The heart was normal.

June 9th, 1881. Vision, with the right and left eyes, normal; the patches were less.

REMARKS.—Several of these cases occurred in the practice of my colleague, Dr. Little, to whose courtesy I am indebted for permission to publish them. I have also to thank our house-surgeon, Mr. Griffith, for notes of Case VII.

The prognosis in these cases is generally good, so far as the vision is concerned. Sometimes, patches of choroidal atrophy remain, and diminish the acuteness of vision considerably. As for treatment, I have generally advised the patients to be extra careful of their general health, and to take iron in some form.

I hope that these notes will induce practitioners to take careful notes of the presence of albumen during pregnancy, and the effect on the labour itself, and on the general health of the patient afterwards. The subject is one full of interest, and which I hope to discuss fuller at an early date.

RHEUMATIC ENDOCARDITIS.

By T. J. MACLAGAN, M.D.

To one or two points in connection with the above subject, touched on in Dr. Sansom's Lettsomian Lectures, published in recent numbers of the JOURNAL, I would like to direct attention.

In speaking of rheumatic endocarditis, Dr. Sansom quotes and endorses the two practical reasons which I give for the failure of the salicyl compounds to counteract the cardiac, as they do the arthritic, inflammation: first, that the cardiac mischief has generally commenced before the patient comes under observation; and, second, that rest, which is essential to the recovery of an inflamed organ, and which is easily got in a joint, is unattainable in the heart. The first reason makes prevention impossible; the second is a bar to successful treatment. But, though this is true, it does not express the whole truth.

That a joint generally recovers from rheumatic inflammation, and that the heart does not, is a statement which expresses the broad results of clinical experience, but expresses them in a manner which, from a pathological point of view, is bald and misleading. The truth is (and striking as the statement may appear, it is absolutely correct) that everything which recovers in a joint recovers, also, in the heart. The one structure in the heart which does not recover, the endocardium, is also the one which has no analogue in any of the structures of a joint. In studying the pathology and treatment of rheumatic endocarditis, it is essential that this point should be kept before us; if we fail to do so, we are sure to fall into error.

The parts which suffer in a joint in acute rheumatism are the fibrous ligaments and tendons, and the synovial membrane. The parts which suffer in the heart are the fibrous rings and valves, the endo- and peri-cardial membranes, and occasionally the muscular substance.

The fibrous rings and valves are similar in nature and function to the fibrous structures of a joint. Each is apt to be the seat of rheumatic inflammation and, in both, this inflammation is generally recovered from.

The pericardium finds its analogue in the synovial membrane. Each is very vascular; each secretes a lubricating fluid; and each has for its function the facilitating the movements of a solid body. Each, too, is apt to be the seat of rheumatic inflammation; in each the inflammatory process tends to spread; and in both the tendency is to recovery.

The endocardium has no analogue in a joint. There is nothing in a joint which bears the least resemblance to it, anatomical or physiological. It is a non-vascular membrane, in which inflammation cannot, and, as a matter of fact, does not, spread. In nature and function, it is identical with the lining membrane of the blood-vessels, with which it is structurally continuous.

When it is affected in acute rheumatism, there is no general inflammation of its surface, such as is found in the pericardium and synovial membrane; the mischief is limited to a small portion of one surface of the affected valve. I have elsewhere* shown that the occurrence of the lymph deposit which constitutes the endocardial lesion in acute rheumatism, and its limitation to one particular portion and to one surface of the valve, are to be explained, not by the direct action of the rheumatic poison on the endocardial lining, but by the mechanical rubbing against each other of valvular segments, whose deeper fibrous structures are the seat of rheumatic inflammation and thickening. This thickening of their fibrous structure it is which makes the valves rub; and the rubbing it is which irritates and roughens the membrane that covers them externally. The inflammation and thickening of the fibrous structures of the valve may be recovered from. What is not recovered from is the roughening of, and lymph deposit on, its non-vascular endocardial covering. This is not recovered from, because the continued action of the valve keeps up the rubbing and mechanical irritation, and because the want of blood-vessels in the endocardium prevents absorption. This is a condition over which no drug could possibly exercise any control. It is directly of mechanical, and only indirectly of rheumatic, origin.

But it is by no means certain that we may not in some cases, by the early and free administration of the salicyl compounds, prevent the inflammation, and consequent thickening, of the fibrous texture of the valve, which is the origin of all the mischief. If we see a case early enough, and give these compounds freely enough, we may prevent the heart from suffering, as we undoubtedly do prevent joints from suffering. In no given case, indeed, can we be sure of having got this result; for the absence of heart-mischief can never be demonstrated to be due to the treatment. The possibility of such a result, however, is worth striving for; especially as the means of attaining it are also those called for in the interests of the joints. What is wanted, is the speedy arrest of the rheumatic process. This object can be attained only by giving one of the salicyl compounds in large and frequently repeated doses.

This leads me to remark that my recommendations in this respect have not been acted up to. What I recommend is, that from 20 to 40 grains should be given every hour for six hours, or until pain is relieved (which it generally is within that time), and that the same dose should then be given every two hours till the pain is gone and the temperature at or near the normal (which is generally the case within 24 hours). After that, the same dose is given at widening intervals of three, four, and six hours, for ten or twelve days.

But instead of giving it thus freely and largely, most observers are content to give only from 15 to 20 grains every three or four hours. That is quite an inadequate dose, and not nearly enough to give the full curative effects of the drug. I would again urge the use of the dose which I recommend. I do not exceed my right in asking that my treatment should be carried out in all its details before its results are subjected to criticism.

Salicin is the preparation to which I give preference, not because I regard it as superior to salicylate of soda as an antirheumatic, but because it may be given in large and frequent doses without causing such disturbance of the system as not unfrequently follows the use of the salicylate, and necessitates its suspension. My experience, too, is that those treated by salicin (which is a bitter tonic) convalesce more rapidly than those treated by the salicylate.

There is an impression abroad that it is very expensive. It is not so. Two of the chief English manufacturers of it have told me that they are prepared to supply it to hospitals and dispensaries at 10s. 6d. a pound. Convalescence is so much more rapid under its use, that I am not sure that it would not, in the long run, prove cheaper than salicylate of soda.

* On Rheumatism: its Nature, its Pathology, and its Successful Treatment. By T. J. MacLagan, M.D. Pickering and Co. 1881.