pense of maternal safety; the result aimed at would be the continuance of the pregnancy with safety to the mother: that would be the ideal. Then there have been several cases of albuminuria in pregnancy, all of which would, I am certain, have been fit and proper patients for the pro-maternity; several of them developed eclampsia, and in one of them albumen appeared in the urine for the first time the night before the convulsions manifested themselves. In a pro-maternity we might be able to study with scientific exactness not only the pre-eclamptic but also the pre-albuminuric modifications of the urine, and we might also discover the relationship which exists between the absence of normal thyroid hypertrophy and the presence of albumen in the urine. In one of the cases of eclampsia that I have met with during the last twelve months the urine kept for nine months without showing any signs of putrefaction and without giving any positive results on the ordinary culture media; this case would have been a suitable one for such scientific investigation as could have been given to it in a pro-maternity.

The cases to which I have referred were instances of the pathology of pregnancy in which the maternal factor was of primary importance, and in which the treatment aimed at the safety of the mother; but there were others in which it was antenatal therapeutics that came under consideration. There was the case of an alcoholic mother who had given birth to an infant with congenital heart disease (persistence of the patency of the foramen ovale), and who was again pregnant; the obvious treatment was total abstinence from alcohol, a treatment which might have been carried out with some chance of success in a special hospital. There was the hæmophilic mother who had given birth to two hæmophilic male infants, and had suffered from dangerous *post-partum* hæmorrhage on each occasion, and who was given calcium chloride during the three last months of the third pregnancy, in the hope of preventing the *post-partum* bleeding, and perchance of benefiting the fœtus. There was the case of the woman who had given birth to a series of very large children, deadborn on account of their great size; in the pro-maternity the effect of variations in the maternal diet (as suggested by Prochownick and others) upon the bulk of the fœtus might be carefully tried. The same remark applies to cases of small pelvis in which a small infant might pass safely while a larger one would have to be sacrificed or be extracted prematurely, or born by the Cæsarean section at term. There was the case of the patient who had in previous pregnancies given birth to imbecile or mentally defective children, and to whom phosphorus was given, with the apparent result that the next infant was normal in these respects. Finally, there was the case of the woman, truly a monstripara, who had brought three monstrous fœtuses into the world, and had had several abortions; she was willing to do almost anything that might be recommended, in the hope of having a more satisfactory reproductive record; she would undoubtedly have entered the pro-maternity, even if but little hope of betterment were held out to her.

The number of cases which might be benefited by the systematic and scientific investigation of the bodily functions in pregnancy might easily be increased, but I have contented myself with a reference to the actual instances which have been brought under my notice recently; some of them—for example, the monstriparous patient—I have published; others—for example, the hæmophilic mother—will be published shortly by the medical men in whose practice they occurred.

I have emphasised the scientific value of such a hospital as the pro-maternity might be, but the more distinctly economic aspects are not to be lost sight of, especially if it be found to be true that working women who are able to rest for the last month or two of pregnancy give birth to larger and more healthy infants. I have not gone into the question of the management of this as yet imaginary hospital, nor into the matter of the medical staff; but from the scientific standpoint there would have to be every appliance for the perfection of antenatal diagnosis (skiagraphy, cephalometry), and one member of the staff would require to be a skilled physiological chemist. That there will be difficulties in the way may be expected; that the idea will be regarded as visionary or chimerical is certain, and will not surprise me, as it has been only by slow degrees that I have come to regard it as

anything else. In the meantime this communication may be looked upon as a "*ballon d'essai*," the whole matter of the pro-maternity being still *in nubibus*.

ON A UTERUS WHICH CONTAINED ONE HUNDRED AND TWENTY FIBROIDS.

By J. BLAND-SUTTON, F.R.C.S.,
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It is not uncommon to find twenty fibroids in a uterus, and in this JOURNAL (1899, vol. i, p. 839) I figured a uterus which contained one hundred and two.

In May, 1900, my colleague, Dr. Inglis Parsons, asked me to perform hysterectomy on a woman 34 years of age, who had been under his care for profuse bleeding due to fibroids. The patient was profoundly anæmic, in spite of the most careful and assiduous treatment indicated by the phrase "rest and drugs." It was evident to all who saw her that "surgical" treatment was a necessity. I removed the body of the uterus by the abdominal route, and left both ovaries and Fallopian tubes. She made an excellent and quick recovery.

The uterus had a peculiar oval shape, and measured 10 cm. in the vertical and 15 cm. in the transverse axis. On opening it I was surprised to find four sessile fibroids projecting into the cavity of the uterus, which had become so moulded to each other as to form facets on their contact surfaces such as are found in multiple gall stones. These fibroids were about the size of pigeon's eggs. The cut surfaces of the uterine wall was very thickly dotted with small rounded

Fig. 1.—The minute structure of a seedling fibroid. The circular cells are spindles cut at right angles. This figure represents a complete section through the equator of an embryonic fibroid the size of a mustard seed.

fibroids. The specimen was then carefully hardened in methylated spirit, and complete sections were made by means of a sharp, thin, broad knife. The uterus was found to contain a multitude of fibroids, varying in size from a coriander seed to a cherry stone. From a careful computation of the tumours in the various sections, this uterus, which scarcely exceeded the dimensions of a fist, contained one hundred a

twenty fibroids. I took the opportunity to have pieces of the endometrium and portions of the uterine wall with some of the smallest tumours *in situ* prepared for microscopic purposes with the hope of determining the structures in which fibroids arise.

I examined particularly the smallest of these seedling tumours, and in all that were investigated the structure was that of plain muscle tissue, and even in the very smallest the alternate and whorled disposition of the spindles was very striking (Fig. 1).

In all that were examined the tumour cells were found disposed around the blood vessels; this arrangement was so obvious that the architecture of these tiny tumours may be described as bundles of plain muscle fibres twined around and intimately associated with the walls of capillaries. Indeed the relation of the vessels to the cell elements of these seedling tumours was such as to suggest that the muscular coats of the vessels are the source of fibroids. This is somewhat different to the idea I entertained when starting on the investigation of this extraordinary uterus. I thought it possible that fibroids might have some such relation to the nerves of the uterus that molluscum fibrosum nodules bear to the cutaneous branches of nerves, but in spite of the most careful staining methods no such relationship was detected.

An interesting feature of these minute fibroids is the similarity they bore to the large fully developed fibroid. Each was globular, and on section quite white, so that the contrast in colour with the red of the uterine muscle fibre made them conspicuous objects on the cut surface. Each fibroid, too, was sharply differentiated from the uterine tissue by a thin capsule, from which it could be enucleated with the point of a narrow scalpel, and this capsule is seen to be sharply differentiated in the stained sections when microscopically examined. The computation of the fibroids in this uterus was also partly carried out by picking these tiny tumours out of their capsular beds.

The length of time necessary for one of these embryonic fibroids to acquire mischievous dimensions is a matter of some concern, but it is at present as unanswerable as the question: What are the circumstances favourable to their development and growth?

Although I have examined very carefully many hundreds of uteri containing fibroids in the last sixteen years I have not seen one similar to the specimen described in this communication, nor have I read an account of one in any way resembling it.

PLACENTA PRÆVIA.*

By R. P. RANKEN LYLE, M.D., B.A.O.,

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THE term "placenta prævia," which really means the implantation of the placenta in the lower uterine segment, is now most commonly applied to the most prominent symptom of that condition—namely, hæmorrhage directly resulting from it.

For clinical purposes, and also for purposes of treatment, it is unnecessary to divide placenta prævia into more than two varieties—complete and incomplete.

With reference to the symptoms, etiology, and clinical features of this condition, it is unnecessary to say anything, as they are sufficiently described in most textbooks, and about them there cannot be much difference of opinion; it is otherwise, however, with regard to the diagnosis, prognosis, and treatment, and in reference to these I purpose saying a few words.

DIAGNOSIS.

The diagnosis of placenta prævia is not difficult, and depends on the fact of being able to feel the placenta attached to the lower uterine segment. There are a number of cases, however, in which hæmorrhage occurs when the first stage of labour is well advanced, and in which the lower margin of the placenta may possibly encroach on the lower uterine segment, but beyond reach of the finger by vaginal examination.

* Read before a meeting of the Northumberland and Durham Medical Society.

In such cases the amount of hæmorrhage is usually small, and, occurring as it does during the course of labour, these cases cannot be considered of any gravity, because immediately the membranes are ruptured the hæmorrhage ceases and labour quickly terminates. If, however, after the termination of labour, the placenta and membranes be examined, and the opening through which the child had passed be found at the very margin of the placenta, one might be justified in considering it a possible case of placenta prævia, but not otherwise.

A case of carcinoma of the cervix causing hæmorrhage in advanced pregnancy might possibly be mistaken, on hasty examination, for a case of placenta prævia, but a careful examination would usually elicit the true nature of the case.

PROGNOSIS.

The prognosis as regards the mother depends (1) on the variety of placenta prævia, the complete form being more dangerous than the incomplete; (2) on the treatment adopted, any form of mechanical dilatation of the cervix or the rapid extraction of the child being extremely dangerous to the mother's life; (3) on the amount of interference; (4) on early treatment.

The prognosis on behalf of the child depends (1) on the period of pregnancy; (2) on the amount of hæmorrhage; (3) on the rapidity of labour.

In most cases of placenta prævia, the best treatment for the mother is usually the worst for the child; but when we take into consideration that we should not lose a single mother by adopting a certain line of treatment; and, on the other hand, no matter what treatment we adopt, one half of the children will be stillborn, and the majority of the other half, on account of premature birth and their anæmic condition, survive for only a few days or perhaps a few weeks; it behoves us, therefore, to adopt that treatment which is best for the mother, and especially so as the treatment which is best for the child, namely, *accouchement forcé*, gives a large maternal mortality.

TREATMENT.

A careful study of the circumstances influencing the prognosis on behalf of the mother would serve as a valuable indication as to the line of treatment to be adopted in each individual case, and in addition a close consideration of the different conditions which may exist. The conditions which should guide us as to treatment are:

1. Complete or incomplete placenta prævia.
2. The nature of the presentation.
3. Whether labour be absent or present.
4. The character of the pains and the size of the os uteri.
5. Whether the membranes are ruptured or not.

For purposes of treatment, most cases of placenta prævia may be divided into three classes as follows:

First, cases of incomplete placenta prævia, in which the first stage of labour is fairly well advanced; rupture of the membranes and the application of a tight abdominal binder will usually be found sufficient treatment, but in a rare case this treatment may not check the hæmorrhage, when version (if necessary) should be performed, and a foot brought down, leaving the subsequent delivery to Nature, with the exception, of course, of slight traction on the foot should hæmorrhage continue.

Secondly, cases of complete or incomplete placenta prævia, in which the os uteri is sufficiently dilated to admit two fingers. It is in the treatment of these cases that so much difference of opinion exists, some recommending the rapid evacuation of the uterus of its contents, irrespective of the injury which may be done to the mother's soft parts, and indeed of the risk to the patient's life; while others recommend the separation of the placenta from the uterine wall with the finger, a proceeding which many consider not only fatal to the child, but extremely dangerous to the mother, on account of the risk of septic infection.

The treatment which has been adopted at the Rotunda Hospital for many years with marked success is as follows: In cases of central or complete placenta prævia the placenta is perforated with the fingers, version (if necessary) is performed, and a foot brought down, a tight abdominal binder applied, and the subsequent delivery left to Nature, unless, of course, the continuance of hæmorrhage should necessitate slight