such system was advocated some time ago when the Medico-Legal Society in London decided to urge the formation of a medico-legal institute. It should be possible to establish such institutes, not only in London, but in other centres, so arranged that the whole of the medico-legal work of the country could be under expert supervision. The speaker instanced the conditions in Egypt, where all medico-legal cases of any importance came automatically under the notice of the Medico-Legal Department of the Ministry of Justice. This department, which consisted of whole-time medical officers, chemists, and other officials, was attached to the Parquet, an investigating authority. All cases of poisoning, in whatever part of the country they occurred, all examinations of blood and other stains, and, in fact, all technical examinations, were carried out in the central laboratories at Cairo, while experts were available for advice and assistance in the different centres. A similar scheme could readily be inaugurated in this country, and the cost would almost certainly be less than the cost of the present haphazard system of payment to different local practitioners. The speaker gave actual figures for his own department, which showed that if the work done had been paid for by the case the cost to the country would have been about four times as much.

DR. A. ALLISON (Glasgow) regretted that students and most practitioners had to rely on accounts of cases. The average man was only rarely called to court, and if he had a special interest in medical jurisprudence it was difficult for him to obtain the necessary post-graduate instruction. If the teaching of forensic medicine was to be improved three things were required: (1) increased opportunities for personal observation on the part of both undergraduate and post-graduate students; (2) opportunities of gaining experience in laboratory investigations; (3) opportunities for the discussion of medico-legal problems, preferably in a mixed society of doctors, lawyers, and other interested persons. Much might be done by organization to satisfy these three conditions. In towns having a medical school a centre for *post-mortem* examinations might be provided by the local authority, but it would probably be better if an arrangement could be made with the pathological department of a hospital. It would be an advantage if all cases of poisoning admitted to hospital were collected into one ward. In any big hospital there would be enough cases annually to demonstrate the effects of the commoner accidental and suicidal poisons, and laboratory work could be easily arranged. For the post-graduate student intending to follow the special work of forensic medicine full facilities ought to be provided. The only medico-legal society in Great Britain held its meetings in London, yet in all large centres there were many doctors and lawyers interested in medico-legal problems, and provincial societies should be formed. Academic study should be supplemented by practical experience, which could be obtained by assisting a police surgeon in his routine work.

Dr. DOUGLAS KERR (Edinburgh) pointed out that a medico-legal service could grow up in a similar manner to the public health service, the first essential being that one man specially interested, and later one specially qualified, should be officially appointed for a given area. All forensic questions and *post-mortem* examinations in the area should be referred to him in the first instance, and not be undertaken by practitioners ignorant of this branch of medicine.

Professor J. T. J. MORRISON (Birmingham) said that medico-legal practice in England in the sphere of crime was not encouraged in due proportion to its legal and social importance. The financial departments of public bodies were reluctant to authorize coroners to retain the services of medical experts in elucidating complex problems where crime or unnatural death was known or suspected. Too often it was thought that *post-mortem* examination might be assigned to any doctor, and investigations demanding special skill and knowledge were entrusted to persons who were unfamiliar with the questions to be solved and with the procedure involved in their solution. He deplored

the fact that forensic medicine was put in the background in English teaching centres, and was frequently taught by men who were not in touch with medico-legal practice.

Dr. HINCKS (Hay) instanced cases of difficulty to the general practitioner.

Lord RUSSELL said that since the medical curriculum was already so heavy he was glad to hear suggestions of post-graduate teaching in this subject.

Sir W. SCHRODER (Coroner for Central London) thought there should be a central mortuary where *post-mortem* examinations could be made, and, under certain regulations, be open to persons who wished to obtain knowledge in pathology and to be taught forensic medicine. The teacher should be one whose duty it was to deal with dead bodies, and that was, in a majority of cases, the police surgeon. The difficulty was that the work of the police divisional surgeon was not sufficient in itself to employ his whole time; private practice would not tend to increase his interest in criminal work.

Professor GLAISTER, in reply, said that after many years of work as police surgeon and medico-legal examiner in Glasgow he suggested that the police should know something of the elements of medical jurisprudence, and for some years now the police and detective departments had received instruction on that subject. Thorough *post-mortem* examination was an important part of a medico-legal examiner's work, and in Glasgow there was a centre where bodies were brought for this examination. Financial considerations prevented many improvements being added.

THE ABUSE OF CAESAREAN SECTION.*

BY

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ONE great difficulty I have in writing on the abuse of Caesarean section is that almost everything I can say on the subject has been anticipated by Professor Whitridge Williams of Baltimore, and has been put much better than I can put it. In what I say, however, I am not merely adopting his views—my own have been formed independently, but they coincide with his. Even in 1917 he anticipated the title of this paper. On the other hand it is a very great advantage to have his authority to support my own attitude. In 1916, when addressing the Clinical Congress of Surgeons of North America, he spoke as follows:

"Unfortunately history shows that advances in the practice of medicine and surgery are rarely attained in a thoroughly rational manner, but that a period of undue enthusiasm, or even of almost reckless abuse, usually precedes the establishment of the actual value of a given procedure. . . . I believe that we are at present going through such a stage in connexion with Caesarean section."

Again, in the last edition of his *Obstetrics* he writes as follows:

"With the increasing perfection of surgical technique, and an erroneous idea of the safety of the operation, there seems to be a growing tendency to regard Caesarean section as the simplest means of coping with most obstetrical difficulties. At the present time I consider that the operation is being abused, and that not a few patients are sacrificed to the *furor operativus* of obstetricians and general surgeons who are ignorant of the fundamental principles of the obstetric art. This being the case, the conscious obstetrician should be particularly careful in the recognition of indications for Caesarean section."

It would be an easy matter to quote similar opinions presented by other writers, but I think Williams's authority is sufficient. I think, too, that it, together with the statistics which I shall put before you, will establish my two main points:

First, that Caesarean section should be avoided whenever possible, on account both of its immediate risk and of its possibly crippling effect on the patient.

*This paper, read before the Australasian Medical Congress at Dunedin, New Zealand, early this year, has been a little curtailed and some appended statistical tables omitted in order to ensure publication.

Secondly, that Caesarean section is seldom necessary, because the art of midwifery provides a more satisfactory alternative.

The mortality following Caesarean section varies directly according to the stage at which the operation is done. The figures collected by Holland in 1881 prove this very clearly. Caesarean section for contracted pelvis done before labour begins caused a mortality of 1.4 per cent.; early in labour a mortality of 1.8 per cent.; late in labour a mortality of 10 per cent.; after a preliminary induction of labour a mortality of 14 per cent.; after attempted forceps a mortality of 25.7 per cent.; after attempted craniotomy a mortality of 50 per cent. I wish to emphasize the fact that even when the operation was done under the most favourable circumstances the mortality was 1.4 per cent.

This is a low mortality—lower, perhaps, than is actually the case. Williams's corrected statistics for *all* cases in his hospital—corrected by the exclusion of deaths which were not attributable to the operation—give a mortality of 3.35 per cent. He divides his cases into two periods. In the first period he operated at any time during labour, often after a prolonged second stage. The mortality was 12 per cent. In the second period the operation, whenever possible, was done before, or a few hours after, the onset of labour. The mortality was 2.45 per cent. Further, he considers that the general mortality in the United States of all cases is 10 per cent.

The cost of Caesarean section done late in labour is very high. As Williams says, the evidence is clear that whenever a considerable time has elapsed between the onset of labour and the performance of Caesarean section, we must take into consideration the probable existence of a latent infection, which may later give rise to a general peritonitis. To prevent this there is apparently only one remedy, and that is to substitute a radical for a conservative operation, and to remove the uterus. Such a course reduces the mortality very markedly. Williams records 56 cases with a mortality of 1.8 per cent. It is, however, a high price for a young woman to pay.

Perhaps if it was possible to get into the mind of the operator who unnecessarily resorts to Caesarean section late in the second stage that his duty is to remove the uterus as well as the infant, it might induce him to try obstetrical methods of delivery before resorting to surgical ones.

I think we may take it as a fact that every case in which an unforeseen Caesarean section has to be done for obstructed labour is directly due to a failure of diagnosis—that is, in the great majority of cases, to insufficient or inefficient ante-natal care. I do not mean to suggest that diagnosis is always possible. Theoretically it may be. Practically it may not. I think, however, that if the causes of obstruction that cannot be recognized before or at the beginning of labour be examined it will be found that the correct treatment for most of them is not Caesarean section. Ante-natal care and diagnosis is one of the surest ways of avoiding unnecessary operations, of enabling us to do the necessary ones at the proper time, and so of reducing the mortality to a fifth of what it would otherwise have been.

I am quite aware that it is customary in many places to practise in contracted pelvis what is called the test of labour and, if delivery fails, to perform a Caesarean section late in labour. I cannot give a general approval to such a course. In the first place, careful examination and internal measurement with Skutsch's pelvimeter will usually enable us to decide whether Caesarean section is the proper course to adopt, while, if there is a reasonable prospect that the patient will deliver herself and she fails to do so, pubiotomy is preferable, especially in multiparae. There are undoubtedly borderline cases in which an exact prognosis is impossible, and in such the obstetrician who attends them must decide according to his own views. I would like, however, emphatically to protest against the idea that a test labour can be substituted for exact preliminary diagnosis, because the object of the latter is to exclude, so far as is possible, the necessity for the former.

The risks of Caesarean section do not end with the convalescence of the patient, because there is in all cases

the danger that a permanent injury may result to the uterine wall, which is thereby thinned and prone to tear during a subsequent labour. Theoretically, it should be possible to produce a union of the incision which, after a short time, is indistinguishable in appearance or strength from the rest of the muscle. Practically, there is always the risk that unsuitable suture material, bad suturing, or sepsis of the wound may cause a weakening of the scar. That the risk is a real one is shown by Holland's collected statistics. Seventy women were delivered, or delivered themselves, through the vagina after a previous Caesarean section, and in 18, or about 25 per cent., the scar ruptured during labour. Rupture during pregnancy is rarer, but it, too, may occur.

Again, peritoneal adhesions, while they are not necessarily dangerous to life, and may be symptomless, are not an advantage. Williams, in forty-eight women who had been operated on in his own clinic, found subsequent "broad or dense adhesions" in one-third. In others who had been operated on elsewhere he found them still more frequently. Accordingly, a young woman on whom Caesarean section is done may be left in such a state that she is unable to have a normal labour subsequently, she may be rendered permanently sterile by the loss of the uterus, or she may lose her life from the risks inseparable from the operation. The obvious conclusion from these facts is that Caesarean section must be avoided whenever it is possible to do so. The three most common conditions in the treatment of which Caesarean section is most abused, are probably the milder degrees of contracted pelvis, eclampsia, and placenta praevia.

The milder degrees of contracted pelvis offer perhaps the largest field for the irresponsible operator. As Williams puts it: "I have been reluctantly forced to the conclusion that, in many parts of the country, the mere diagnosis of a contracted pelvis, irrespective of degree, is considered a satisfactory indication for the operation."

There are usually considered to be four degrees of contracted pelvis. In flat pelvis whose true conjugate measures $3\frac{1}{4}$ inches or more there is very seldom an indication for operation. When the conjugate measures between $3\frac{1}{4}$ to $2\frac{3}{4}$ inches, Caesarean section is permissible, but can be replaced by the induction of premature labour, or by pubiotomy. In the other two degrees Caesarean section is positively indicated. The vast majority of contracted pelvises fall into the first, or the upper limit of the second degree—Williams places it at about 95 per cent., and of these 80 per cent. deliver themselves spontaneously. The selection of the correct line of treatment is entirely a matter of exact diagnosis, as made by internal and external measurement of the pelvis, and by estimating the relation of the foetal head to the pelvic brim. External measurement alone is valueless. A general practitioner who has not had a very large midwifery experience is most unwise to undertake the management of such cases, and the routine performance of Caesarean section does not lessen his responsibility. To the obstetrician whose experience entitles him to treat such cases I would like to say:

"Learn how to use Skutsch's pelvimeter. There is no mystery about it. The ordinary mechanic learns to use measuring instruments which are much more difficult to handle. You can learn its use on the dummy almost as well as on the patient. It is usually necessary to give an anaesthetic, but the number of women who must be measured internally is very small. If it was a question of an ordinary gynaecological examination, you would not hesitate to give an anaesthetic if necessary. Why should you hesitate when the welfare, and perhaps the life, of both mother and child are at stake? It is necessary to exhaust all the powers of diagnosis before you advise your patient that a Caesarean section is unavoidable."

Eclampsia is probably the next most common cause of the abuse of Caesarean section, and that, too, in spite of the fact that its results prove it to be almost the most fatal line of treatment. I pointed this out at the Christchurch meeting of the New Zealand Medical Association in 1923, and a short time afterwards I met a medical practitioner who has a large obstetrical practice. He told me that he and a friend had listened to what I had said at the meeting, and that—I think his words were—they had never laughed so much before. I suggested that it was unkind of him to have laughed at me. He replied, "We did not laugh at

you. We laughed at the idea of anyone doing anything but Caesarean section for eclampsia." Let us see what it was he actually was laughing at.

Eden in 1922 published an exhaustive analysis of the results of eclampsia as treated in Great Britain and Ireland. One of his conclusions was that, both in mild and in severe cases, Caesarean section and accouchement forcé were followed by the highest mortality—a mortality which Holland found to amount to 32 per cent. after Caesarean section.

Petersen found that in the United States the mortality of eclampsia radically treated was 34.8 per cent., and Williams at Baltimore, prior to 1916, treated by radical measures 85 cases with a mortality of 24.7 per cent.

In Germany Engelmann reported a mortality of 26 per cent. and Lichtenstein a mortality of 16.7 per cent.

The results of conservative treatment, on the other hand, are given as follows: Williams was able to report a mortality of 13 per cent., Engelmann of 6 per cent., and Lichtenstein of 9.4 per cent. after they had changed round to conservative treatment. FitzGibbon and Solomons reported 204 cases with a mortality of 10.3 per cent. Stroganoff collected 3,302 cases treated by his method with a mortality of 10.4 per cent., while in more than 230 cases which he treated personally the mortality was 2.5 per cent. Incidentally I may say that he stated that the mortality in New Zealand was 25 per cent., but I do not know where he got his figures. The statistics which I am just about to quote show a mortality of 22.9 per cent.

What my friend laughed at, then, seems to have been methods of treating eclampsia which reduced a mortality of between 16.7 per cent. and 34 per cent. to one of between 2 per cent. and 13 per cent. Even in his own country of New Zealand facts are against him. I have recently analysed the results of 149 cases of eclampsia reported by different medical practitioners. Conservative treatment in 104 cases gave a mortality of 15.38 per cent.; Caesarean section in 29 cases of 27.5 per cent., and accouchement forcé and allied procedures in 16 cases of 43.7 per cent. I have no reason to think that the cases treated by Caesarean section were any more serious than those treated conservatively. It is generally recognized that there is a place for Caesarean section in the treatment of eclampsia, but it is a very small one, and, practically speaking, is only to be found amongst the cases in which conservative treatment has failed to bring about any improvement.

Placenta praevia comes next, and here, too, the results obtained from Caesarean section, as compared with those of more conservative measures, are directly opposed to its routine use.

Holland reported that the mortality in the British Isles after Caesarean section in 139 cases was 11.5 per cent. R. W. Holmes estimated that the similar mortality in the United States was 20 per cent. On the other hand, purely obstetrical treatment has given the following results. Williams, who uses the Champetier de Ribes bag, had one death in forty cases, or 2.5 per cent. Hofmeier, Behm, Lomer, Essen-Möller, Pinard, and Stratz have recorded a total of 603 cases treated by Braxton Hicks's method, with a mortality of 2.9 per cent. I recorded a short time ago 264 cases which had occurred at the Rotunda Hospital with a mortality of 5.3 per cent. I am able to say that a number of the patients who died were moribund on admission, and could not have been treated by Caesarean section. If these cases are excluded, as they should be in any comparison with the results of Caesarean section, the mortality would have been about 3 per cent.

Unless we are prepared to accept obstetrical incompetence as a valid indication for Caesarean section, the only justification for it in placenta praevia is that it will save more infants. As Holmes says, in the United States operation saved one baby for every mother it killed. I do not think that in ante-partum haemorrhages the prospect of life possessed by a premature infant, weakened by maternal and often by foetal haemorrhage, is sufficiently valuable to place in competition with the life of the mother.

There is a place for Caesarean section in the treatment of placenta praevia just as there is in the treatment of eclampsia, but it is a very tiny one. A foetus that is viable and that has not been weakened by previous bleeding, a mother who is in good condition, and a placenta which is central give, I think, a good reason for doing Caesarean section in order to save the foetus.

There are still a few conditions left which serve as reasons or excuses for Caesarean section. Malpresentation of the foetus is one of them. I think that since I was qualified I have known personally of two cases in which Caesarean section was done for transverse presentation. In one the mother died, in the other both mother and

child lived. The former was catastrophic, the latter—peculiar.

In the morning, an hour and a half after the rupture of the membranes, the medical attendant found a transverse presentation by external examination. He did nothing. In the evening he found the cord and a hand in the cervix by internal examination. He gave the patient morphine. The next morning, as meconium was coming away, he did a Caesarean section. The patient was 24, and had had two normal confinements. His reason for his treatment was that the uterus was throughout in a state of tonic contraction, but the fact that the child was alive and well twenty-four hours after the membranes ruptured is rather opposed to this. No attempt was made to see if the contraction would pass off under an anaesthetic or to correct the presentation by internal version.

I would make the following suggestions:

(1) That almost every case of neglected shoulder presentation, in which the child is alive, can be changed to a foot presentation by internal version.

(2) That if the presentation cannot be changed the amount of force required to bring the foetus out of the pelvis during a Caesarean section must be so great as to be injurious to the uterus.

(3) That such a case would almost invariably be infected, and that consequently a hysterectomy is always necessary.

(4) That when the child is dead there is no possible indication for Caesarean section.

I have the records of 209 cases of transverse presentation treated in the Rotunda Hospital. I do not think that decapitation has ever been done on a living child, nor has delivery ever been effected by Caesarean section. In other words, in every such case it has been possible to correct the presentation. I am, of course, excluding cases in which operation may be necessary, not on account of the presentation, but because the pelvis is contracted, or other form of gross obstruction exists.

I said that there was a tiny place for Caesarean section in the treatment of placenta praevia. I do not think there is even this place for it in the treatment of transverse presentation.

Time will not allow me to discuss the other forms of obstructed labour that have been used as a reason or an excuse for Caesarean section. There are undoubtedly several forms in which the operation may be necessary, and amongst them I am afraid that rigidity of the cervix is sometimes included. I had thought that this ancient bugbear of the obstetrician had passed away with the midwife who kept her fingers in the vagina throughout labour. Still, should a bona-fide instance of it occur, I am inclined to think that it should be possible to remove it by obstetrical measures, instead of removing the child by surgical ones.

Some Statistics of Results of Obstetrical Operations in Certain Maternity Hospitals.

At the Bellevue and Associated Hospitals in New York, 4,268 patients were confined. Caesarean section was done once in 97 cases. The death rate from eclampsia was 48 per cent., and after Caesarean section 7 per cent. The total death rate was 25 per 1,000.

At the Boston Lying-in Hospital, 1,133 patients were confined. An obstetrical operation was performed once in every 2.4 cases, and Caesarean section was done once in every 12 cases. The death rate from eclampsia was 54 per cent., and the total death rate was 22 per 1,000.

At the Jefferson Hospital in Philadelphia, 1,453 patients were confined. Caesarean section was done once in every 6.3 cases; the general death rate was 23 per 1,000.

With these may be contrasted the similar statistics of the Rotunda Hospital for thirty-four years ending 1922. There were 57,412 confinements. Caesarean section was done once in every 366 cases. The death rate from eclampsia was 12.5 per cent., and the total death rate was just under 5 per 1,000.

Is it any wonder that Williams speaks of "an abuse of the operation (Caesarean section) which can be attributed only to an obsession by the *furor operativus*"?

I do not think that the accuracy of the statistics I have given can be disputed. Assuming that they are correct, is it possible for anyone to advise the operation for conditions that can be equally well, or even better, cured by obstetrical measures? Further, can anyone fail to recognize the necessity for such careful ante-natal examination of the patient as will enable us to operate under the most favourable circumstances whenever Caesarean section is really necessary?

There is a glamour which attaches itself to the operation of Caesarean section in the minds of the public, and a kind of spurious fame. I am sure there is no need here to warn against any attempts to encourage such absurdity, but perhaps it is well to suggest the wisdom of definite efforts to kill it. I know no better way of so doing than by medical men bringing their patients to recognize that, as I have said before, practically every case in which an unforeseen Caesarean section due to obstructed labour is necessary is directly due—at any rate theoretically—to insufficient or inefficient ante-natal care. Moreover, I am quite sure that, whether with or without medical guidance, the public will some day recognize the fact for themselves. It is entirely preferable, when this happens, that the medical profession should be able to say, "We told you so."

I have written a little strongly, but I think it will be seen that every opinion I have expressed is shared by obstetricians of the highest rank. I think, too, that many will agree with me that there is a real danger of obstetrics becoming a lost art. R. W. Holmes foresaw this danger ten years ago, and I do not know that it has grown any less since then. There are several ways of combating it, but this is not the time to discuss them. It is, however, a good time to remember that the conscientious medical adviser cannot justify himself when he tries to replace a lack of obstetrical knowledge by mere surgical facility.

I dislike very much bureaucratic interference with the liberty of the individual unless it is unavoidable, but voluntary co-operation would be most welcome. I think that if medical practitioners generally would furnish the Health Department with information regarding cases in which they found Caesarean section necessary they would materially help to check any abuse of the operation, and so to reduce maternal mortality.

Conclusions.

Finally, I should like to summarize briefly the conclusions which I think must be drawn from the facts I have put forward.

1. Caesarean section done under the most favourable conditions is associated with a mortality of nearly 2 per cent., and may be followed by peritoneal adhesions, and subsequent rupture of the scar.

2. Caesarean section done under unfavourable conditions is followed by a mortality of from 10 per cent. to 50 per cent., and in patients who survive the risk of after-complications is greater.

3. The only way of avoiding such operations is careful ante-natal diagnosis, and the only way of reducing their mortality when they are necessary is to remove the uterus.

4. Unless there is good reason for thinking that the uterine incision has healed satisfactorily, it may be unwise to allow a patient to deliver herself at subsequent pregnancies.

5. The treatment of eclampsia by Caesarean section is followed by a mortality of from 16 per cent. to 34 per cent. Conservative treatment is followed by a far lower mortality.

6. The treatment of placenta praevia by Caesarean section is followed by a mortality of from 11 per cent. to 29 per cent. Obstetrical treatment is followed by a far lower mortality.

7. The necessity for treating a transverse presentation by Caesarean section is almost unknown. When it occurs, it is also necessary to remove the uterus.

8. The statistics of hospitals in which Caesarean section is extensively done, unless they are based on a foundation quite distinct from that of other maternity hospitals, do not offer any encouragement to those who would imitate their producers.

Perhaps it would be wise to disarm criticism by admitting at once that my paper has not got a single new idea in it, or any promise or even suggestion of a new idea to come. It is more or less a plea for reversion—reversion to the older and saner ideas that used to govern midwifery practice generally, and that still govern it in most places. If Truth lies in front of us, it is well to go forward, but if we have overshot her and she is behind us, it is

necessary to turn back. Discretion is the better part—of midwifery.

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Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

MÉNIÈRE'S DISEASE TREATED BY THE ELECTROPHONODE.

WHATEVER the true pathology of this disease, it presents a definite clinical entity, is extremely rare, and most distressing. First described by Ménière in the *Gazette Médicale de Paris* in 1861, the patient died, and the *post-mortem* examination revealed haemorrhage into the semi-circular canals. Cases have, however, since been reported as having presented all the clinical signs of the disease in which *post-mortem* findings have failed to give evidence of haemorrhage into the canals.

A spinster, aged 43, consulted me early in April for severe vertigo and nausea. She was deaf in the left ear, hearing only a shout at one metre; the deafness was accompanied by tinnitus.

Her first attack occurred in August, 1926, when she fell to the floor from vertigo. She noticed that the left ear had become deaf after the attack. Consciousness was not lost nor has it ever been lost during the attacks; memory was, however, almost completely abolished. She was very dejected; the attacks of vertigo had become much more frequent both by day and night. The longest vertiginous attack lasted two hours, but the average duration was about half an hour. She had to crawl on all fours about the house and in going up and down stairs, in order to try and avoid an attack.

The trouble being labyrinthine, I at once began treatment with the Zünd-Berguet electrophonode. Within a week very definite improvement was manifest, and at the end of a fortnight she was able to attempt walking alone. Progressively with treatment the vertigo gradually disappeared, and with it the nausea. Now, after an interval of over two months, she has had no recurrence. Her deafness is better to the extent of hearing a low voice at one metre, the tinnitus is less, and memory has been regained.

I am confident that in the electrophonode otologists possess a very useful treatment in cases hitherto deemed hopeless, but its uses and limitations have yet to be defined.

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PULMONARY EMBOLISM FOLLOWING CHILDBIRTH.

HAVING read the cases of pulmonary embolism following childbirth reported in the *BRITISH MEDICAL JOURNAL* of November 6th, 1926 (p. 835) by Drs. McCulloch and Young, and on November 27th (p. 987) by Drs. Spencer and Dawson, and knowing such complications to be considered rare, I am sending you the report of a similar case which was under my care.

A young woman, aged 30, healthy and robust (5-para), had for some years suffered from varicose veins in both legs. I saw her on September 2nd, 1922. She was then in labour, with frequent slight haemorrhages. The cord was prolapsed, and the implantation of the placenta low. As the cord was strongly pulsating and dilatation was occurring quickly, no intervention was attempted. She delivered herself in the course of an hour of a healthy female child. The puerperium was uneventful, temperature, pulse, and lochia being normal. She was eating and sleeping well and nursing the baby, and used to remark on my visits how well she felt. Never at any time did she complain of pain in the legs. She was sitting up in bed on the ninth and tenth days. After lunch on the eleventh day she was sitting up in bed; and the nurse was putting on one of her stockings, when she suddenly complained of severe pain in the chest, and fell back in the nurse's arms. When I arrived she was livid, with profound dyspnoea and air hunger; she died within fifteen minutes of the onset of the sudden pain.

No necropsy was performed, but I think no doubt could be thrown on the diagnosis.

Possibly pulmonary embolism following childbirth is not as rare as the textbooks would have us believe.

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