4. Arrangements by which every poor woman can have medical supervision during pregnancy. Pregnant women who are themselves insured under the National Insurance Act are entitled to a "Pregnancy sickness benefit" if certified to be incapable of work, and also to a "Maternity benefit" after parturition. Such women, therefore, should be encouraged to voluntarily notify their pregnancy to their panel doctor or midwife. If to the latter, the midwife should notify the medical officer of health, and these voluntary notifications would enable the potential mother to be medically supervised by the panel doctor or by the medical officer of health's representative. Medical supervision of pregnant women would be made easy if the administration of maternity benefit and pregnancy sickness benefit were transferred from the approved societies to the local health authorities.

5. As advocated by Dr. Ballantyne in 1891, prematernity wards in large towns, and reserved beds in cottage hospitals in rural districts, should be provided where pregnant women can receive medical treatment.

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PITUITRIN IN LABOUR:

A RECORD OF SIXTY CASES, WITH NOTES ON ITS ADMINISTRATION.

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PITUITRIN, or pituitary infundibular extract, is now becoming generally accepted as a valuable aid to the obstetrician. Its property of inducing strong rhythmical contractions of the uterus, first pointed out by Dale,¹ is so marked that it is surprising that it has not been more generally adopted by the practitioner. In these circumstances, this record of 60 cases may prove a sufficient stimulus to those who have not experienced its merits to induce them to try it in the early future.

It is necessary, however, to observe ordinary caution in its administration, and great care should be taken where there is any obstruction. It is a very valuable aid towards shortening the long and often exhausting first stage of labour, especially in those cases in which the membranes rupture early, and a "dry labour" results.

It has proved in my hands to be a powerful remedy in cases in which shock and collapse have supervened on prolonged chloroform anaesthesia, not infrequently inseparable from a difficult case of contracted pelvis (see Case 6 in the series). In patients of a nervous temperament pituitrin has also a great influence, and the excitement is frequently calmed in an extraordinary manner (see Case 7).

Recovery is almost invariably hastened, and patients who have previously had pituitrin nearly always ask for its repetition. I have never had a case of *post-partum* retention of urine since using this remedy; indeed, in Case 6, in which it might reasonably have been expected, a free and copious emission of urine resulted within one hour of its administration. As a controller of haemorrhage pituitrin ranks very highly in my estimation; in one case (No. 58) it controlled the haemorrhage when a previous injection of *ernutin* had failed. Some writers have recorded *post-partum* haemorrhage as a sequel of pituitrin administration, when delivery of

the child did not take place until an hour or more after its administration. I have observed this on a few occasions, but if a second injection be given this does not as a rule occur. In any case a further dose will almost always control the haemorrhage (see Cases 36, 55, 58). In one case (No. 18) the patient in five previous confinements had had *post-partum* haemorrhage, while on this occasion it was particularly noticeable by its absence.

I have worked out the following technique as the best routine method for the administration of pituitrin. When the os admits one or two fingers, but not before, I inject into the gluteal muscles from 0.75 to 1.0 c.cm. of pituitrin; if the child is not born within fifty minutes give a second injection of from 0.5 to 0.75 c.cm., and repeat if necessary. If *post-partum* haemorrhage supervenes, a further injection will almost always control it. Care should be taken to make sure that the syringe and needle are quite free from alcohol before filling with the pituitrin, as alcohol is said to interfere with its action.

Case 1.—II-para, aged 35. *Post-partum* haemorrhage. Intramuscular injection pituitrin 0.5 c.cm. controlled; after six hours secondary *post-partum* haemorrhage occurred. Intramuscular injection of 1 c.cm. pituitrin given, controlled, and made an excellent convalescence.

Case 2.—I-para, aged 25. On arrival os admitted two fingers. Intramuscular injection pituitrin 0.75 c.cm. Os fully dilated in two hours. A second injection of pituitrin 0.75 c.cm. Child delivered thirty minutes later, stillborn. No haemorrhage. The child's shoulders showed unusual development.

Case 3.—VI-para, aged 40. Os admitted two fingers. Pituitrin 0.75 c.cm. injected. Os fully dilated one hour. A second injection 0.5 c.cm. given. Child delivered ten minutes later. No haemorrhage.

Case 4.—I-para, aged 19. Os size of a shilling. Pituitrin 0.75 c.cm. given. Os fully dilated ninety minutes. Second injection 0.5 c.cm. Child delivered thirty minutes later. No haemorrhage.

Case 5.—III-para, aged 30. Os about half dilated. Primary uterine inertia. Pituitrin 0.75 c.cm. injected. Os fully dilated fifteen minutes later. Delivery followed seven minutes after. No haemorrhage.

Case 6.—I-para, aged 27. Patient had a badly contracted pelvis, and anaesthesia of five hours' duration off and on followed. The patient at the end of it was in a condition of grave collapse, and was very cyanosed, the pulse being almost imperceptible. Pituitrin 1 c.cm. was injected. The pulse rapidly improved. Urine was voided one hour later. She slept for seven hours, after which she sat up in bed, her pulse then being 80. Subsequently recovery was uninterrupted. (This case was seen in consultation with Dr. H. A. Hutt, to whom I am indebted for the details of the convalescence.)

Case 7.—I-para, aged 42. Os admitted two fingers. Pituitrin 1 c.cm. given. After one hour os was about half dilated. A second injection of 0.5 c.cm. was made; the os after sixty-five minutes was fully dilated. A third injection of 0.5 c.cm. was given, delivery following thirty minutes later. *mx ernutin* was injected subsequently as an extra safeguard, but there was no haemorrhage. This patient was of an extremely nervous temperament, but after the pituitrin she was much calmer; and it was as much for this reason as for its other actions that the later injections were given. An excellent recovery followed.

Case 8.—I-para, aged 25. Os about the size of a half-crown. Pituitrin 1 c.cm. injection. Child delivered seventy-five minutes later. No haemorrhage. The patient has exophthalmic goitre. (See also Case 47.)

Case 9.—V-para, aged 32. Os admitted two fingers. Pituitrin 1 c.cm. injected. Delivery followed forty-five minutes later. No haemorrhage.

Case 10.—IV-para, aged 27. Os admitted two fingers. Pituitrin 1 c.cm. Delivery followed in sixty minutes. No haemorrhage.

Case 11.—VI-para, aged 42. Os size of a half-crown. Pituitrin 0.75 c.cm. Delivery followed thirty-five minutes later. No haemorrhage.

Case 12.—I-para, aged 30. A very prolonged chloroform labour. Craniotomy after failure of version. Pituitrin 1 c.cm. given for collapse. Made an excellent recovery.

Case 13.—XII-para, aged 49. Os admitted two fingers. Pituitrin 1 c.cm. Delivery followed in fifteen minutes. The perineum ruptured. At her tenth and eleventh confinements the labours lasted twenty-four hours or more, and the patient was astonished at this speedy termination, more especially as she had already been in labour for seven hours. The long labours were purely the result of weak and inefficient contractions.

Case 14.—III-para, aged 25. Os admitted two fingers. Pituitrin 0.75 c.cm. given. Delivery followed forty-five minutes later. No haemorrhage.

Case 15.—V-para, aged 30. Os about half a crown. Pituitrin 0.75 c.cm. given. Delivery followed in thirty-five minutes. No haemorrhage.

Case 16.—II-para, aged 26. Os about half a crown. Pituitrin 1 c.cm. given. Delivery followed forty-five minutes later. No haemorrhage. About three weeks previous to her confinement the patient thought she was in labour. The os admitted two fingers, and pituitrin 0.75 c.cm. was given, but the pains immediately quietened down and left her.

Case 17.—III-para, aged 23. Os about half a crown. Pituitrin 1 c.cm. given. Delivery followed in fifty minutes. No haemorrhage.

Case 18.—VII-para, aged 35. Os about half a crown. Pituitrin 1 c.cm. given. Delivery followed in thirty-five minutes. No haemorrhage. At five previous confinements this patient had post-partum haemorrhage; but with pituitrin it was absent.

Case 19.—VI-para, aged 34. Os about half dilated. Pituitrin 1 c.cm. given. Delivery took place in thirty minutes. No haemorrhage.

Case 20.—VII-para, aged 36. Os about half dilated. Pituitrin 0.75 c.cm. given. Delivery in twenty-five minutes. No haemorrhage.

Case 21.—III-para, aged 21. Os about half a crown. Pituitrin 0.75 c.cm. given. Os fully dilated seventy minutes. A second injection 0.5 c.cm. given. Delivery followed in ten minutes. No haemorrhage.

Case 22.—I-para, aged 18. Born before arrival. Severe post-partum haemorrhage, patient collapsed and almost pulseless. Pituitrin 1 c.cm. injected. Controlled and made excellent recovery. The patient has exophthalmic goitre.

Case 23.—III-para, aged 27. Os about half a crown. Pituitrin 0.75 c.cm. injected. Delivery after forty minutes. No haemorrhage.

Case 24.—V-para, aged 35. Os half dilated. Pituitrin 0.75 c.cm. given. Delivery followed forty-five minutes later. No haemorrhage.

Case 25.—V-para, aged 33. Os half a crown. Pituitrin 0.75 c.cm. given. Delivery followed in thirty-five minutes. No haemorrhage.

Case 26.—III-para, aged 25. Os half dilated. Pituitrin 0.75 c.cm. given. Delivery after thirty minutes. No haemorrhage.

Case 27.—I-para, aged 25. Os admitted two fingers. Pituitrin 0.75 c.cm. given; os fully dilated sixty-five minutes. A second injection of 0.5 c.cm. given. Delivery followed in twenty minutes. No haemorrhage.

Case 28.—III-para, aged 26. Os half a crown. Pituitrin 0.75 c.cm. given. Delivery after forty minutes. No haemorrhage.

Case 29.—III-para, aged 28. Os half dilated. Pituitrin 0.75 c.cm. given. Delivery after fifty minutes. No haemorrhage.

Case 30.—I-para, aged 19. Os admitted two fingers. Pituitrin 1 c.cm. given; os fully dilated in fifty-five minutes. A second injection of 0.75 c.cm. given. Delivery after twenty minutes. No haemorrhage.

Case 31.—IV-para, aged 23. Os half dilated. Pituitrin 0.75 c.cm. given. Delivery followed after thirty minutes. No haemorrhage.

Case 32.—IV-para, aged 27. Os admitted two fingers. Pituitrin 0.75 c.cm. given. Delivery followed in thirty-five minutes. No haemorrhage.

Case 33.—I-para, aged 18. Os admitted two fingers. Pituitrin 1.0 c.cm. injected. Os fully dilated after seventy minutes, a second injection of 0.75 c.cm. given; delivery followed twenty-five minutes later. No haemorrhage.

Case 34.—III-para, aged 27. Os about half a crown. Pituitrin 0.75 c.cm. given; os fully dilated in forty minutes; 0.5 c.cm. injected; delivery followed in twenty minutes. No haemorrhage.

Case 35.—II-para, aged 26 (vide supra Case No. 2.) Os about half a crown. Pituitrin 0.75 c.cm. given; os fully dilated after sixty minutes; a second injection of 0.5 c.cm. given, delivery following fifteen minutes later. No haemorrhage.

Case 36.—XII-para, aged 45. Os half dilated. Pituitrin 0.75 c.cm. given, delivery followed thirty minutes later. Secondary post-partum haemorrhage followed after six hours, but this was well controlled by pituitrin 1.0 c.cm., the patient making an excellent recovery.

Case 37.—IV-para, aged 30. Os about half a crown. Pituitrin 0.75 c.cm. given; delivery following in forty-five minutes. No haemorrhage.

Case 38.—I-para, aged 19. Os admitted two fingers. Pituitrin 1.0 c.cm. given. Os fully dilated sixty minutes later. A second injection of 0.75 c.cm. given. Delivery with forceps thirty-five minutes after. No haemorrhage. There was a slight pelvic contraction in this case.

Case 39.—I-para, aged 33. Os about half a crown. Pituitrin 1 c.cm. given. Os fully dilated seventy minutes after; a second injection of 0.75 c.cm. was given, delivery following in thirty minutes. No haemorrhage.

Case 40.—III-para, aged 30. Os half dilated. Pituitrin 0.75 c.cm. given. Delivery followed after thirty-five minutes. No haemorrhage.

Case 41.—III-para, aged 33. Os about half a crown. Pituitrin 1 c.cm. given, delivery following forty minutes later. No haemorrhage.

Case 42.—I-para, aged 33. Os admitted two fingers. Pituitrin 1 c.cm. given. Os fully dilated sixty minutes after; a further injection of 0.75 c.cm. was followed by delivery in thirty minutes. No haemorrhage.

Case 43.—I-para, aged 18. Os about half a crown. Pituitrin 1 c.cm. given. Os fully dilated in fifty-five minutes; a subsequent injection of 0.75 c.cm. resulted in delivery after twenty minutes. No haemorrhage.

Case 44.—II-para, aged 20. Os about half a crown. Pituitrin 1 c.cm. given. Delivery took place forty-five minutes later. No haemorrhage (vide supra Case 4). This patient having had it before, begged for a repetition of the pituitrin.

Case 45.—III-para, aged 27. Os half a crown. Pituitrin 1 c.cm. given. Delivery resulted after thirty-five minutes. No haemorrhage.

Case 46.—VIII-para, aged 38. Os admitted two fingers. Pituitrin 1 c.cm. given. Os fully dilated in forty-five minutes; a second injection of 0.75 c.cm. resulting in delivery after fifteen minutes. No haemorrhage.

Case 47.—II-para, aged 26 (vide supra Case 8). Os about half a crown. Pituitrin 1 c.cm. given. Os fully dilated after fifty minutes; a second dose of 0.75 c.cm. being followed by delivery in twenty minutes. No haemorrhage.

Case 48.—III-para, aged 24. Os about half a crown. Pituitrin 1 c.cm. given. Os dilated in forty-five minutes; a second dose of 0.75 c.cm. resulting in delivery twenty minutes later. No haemorrhage.

Case 49.—I-para, aged 33. Os admitted two fingers. Pituitrin 1 c.cm. given. Os three quarters dilated after 60 minutes; a second injection of 0.75 c.cm. resulting in delivery thirty-five minutes later. No haemorrhage.

Case 50.—V-para, aged 30. Os about half a crown. Pituitrin 1 c.cm. given. Delivery followed forty-five minutes later. No haemorrhage.

Case 51.—I-para, aged 37. Os half a crown. Pituitrin 1 c.cm. injected. Os fully dilated sixty minutes later; a second injection of 0.75 c.cm. resulting in delivery thirty minutes later. No haemorrhage.

Case 52.—I-para, aged 20. Os admitted two fingers. Pituitrin 1 c.cm. given. Os fully dilated after fifty minutes; a second injection of 0.75 c.cm. resulting in delivery twenty minutes after. No haemorrhage.

Case 53.—V-para, aged 35. Os half a crown. Pituitrin 1 c.cm. given. Delivery thirty-five minutes later. No haemorrhage.

Case 54.—XIII-para, aged 44. Os half a crown. Pituitrin 1 c.cm. given. Delivery twenty-five minutes later. No haemorrhage.

Case 55.—VII-para, aged 46. Os half a crown. Pituitrin 1 c.cm. given. Delivery thirty-five minutes later. Some haemorrhage followed, which was well controlled by a second injection of 1 c.cm.

Case 56.—I-para, aged 35 years. Os admitted two fingers. Pituitrin 1 c.cm. given. Os fully dilated seventy minutes after, a second injection of 0.75 c.cm. resulting in delivery thirty-five minutes later. No haemorrhage.

Case 57.—III-para, aged 35. Os admitted two fingers. Pituitrin 1 c.cm. given. Delivery forty-five minutes later. No haemorrhage.

Case 58.—III-para, aged 27. Os half a crown. Pituitrin 1 c.cm. given. Os fully dilated forty-five minutes after, a second injection of 0.75 c.cm. being followed by delivery twenty minutes later. Some secondary haemorrhage followed. Ernutin failed to control this, so a further injection of pituitrin (1 c.cm.) was given. This succeeded in arresting the bleeding.

Case 59.—II-para, aged 23. Os half dilated. Pituitrin 1 c.cm. given. Delivery followed thirty minutes later. No haemorrhage.

Case 60.—II-para, aged 19. Os half dilated. Pituitrin 1 c.cm. given. Delivery resulted twenty minutes later. No haemorrhage.

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TWO CASES OF PREGNANCY IN UTERUS SUBSEPTUS.*

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IRREGULARITIES in the form of the genital organs arise from the mode of their development by the formation of the Müllerian bands, their subsequent hollowing and their progressive union from the lower end proceeding upwards to the level of the attachment of the round ligaments. How frequently malformations occur it is impossible to say, but the question of their influence on the genital functions is of some practical interest. Possibly in most cases the discovery of their presence is a matter of chance, not essentially involved with the processes which have attracted our attention to the individual patient. During the last six months I have discovered three cases of septate uterus. One of these Dr. Valentine and I have already described, and the others—the subjects of this note, both came under my observation in October last.

CASE I.

Mrs. S., aged 30, had a normal delivery at term in 1909. In August, 1913, when three months in her second pregnancy, she had bleeding, but recovered for the time. The bleeding, however, recurred, and persisted without miscarriage till it became necessary to clear the uterus. For this Dr. Laing asked my assistance. The os dilated to the fingers, and I removed the fetus piecemeal. During the manipulations I found an aperture on the right wall of the uterus about the level of the internal os. It suggested rupture, but on further investigation I found that it was the orifice of a second uterine loculus, and in it I

* Read to Forfarshire Medical Association.