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[NEW SERIES.]

Illustrations OF HOSPITAL PRACTICE: METROPOLITAN AND PROVINCIAL.

SALOP INFIRMARY.

FRACTURE OF THE SKULL.

Under the care of J. R. HUMPHREYS, Esq.

[Read before the Shropshire Branch, July 14th, 1857.]

THE subject of fractures of the skull is of itself so important, both as to its immediate and to its remote consequences, that anything relating to it cannot fail to be acceptable to the profession. I will therefore give a short history of three cases of compound fracture of the skull, which I have recently had under my care in the Salop Infirmary. They were all received within twelve months. The patients were all boys, from 11 to 13 years of age. They were each fractured on the right side of the forehead, and in each the injury was done by the kick of a horse.

CASE I. In the first case, there was a hole, of about the size of a shilling, punched in the right side and upper part of the forehead; the bone was driven into the substance of the right hemisphere for at least an inch and a half; a good deal of the substance of the brain was lying about the wound, which had been forced out by the bone which had been driven in. The boy was perfectly sensible, could walk, and told us how the accident had happened. He did not complain of much pain. He was put into bed; and soon afterwards, about two hours after the accident, he was seized with a most violent convulsive fit. A pair of forceps were introduced through the wound; and the bone, which had been broken into three or four pieces, was removed; whereupon the fit ceased. The wound was dressed with water dressing; a smart dose of calomel was given to him; the room was darkened; and the strictest antiphlogistic diet, with absolute quiet, were enforced. The lad recovered without a single bad symptom.

CASE II. The second patient was kicked over the right eye, causing a compound fracture, the bone being depressed about three-fourths of an inch below its level, and firmly fixed in its new position. This patient, like the former lad, was very little affected by the accident, being perfectly sensible. The wound was drawn together by strips of plaster; a dose of calomel was given; and the same treatment was adopted as in the former case. This patient also recovered without any drawback.

CASE III. The third patient was kicked on the outer side of the right orbit, also sustaining a compound fracture of the skull, with a deep indentation of the bone, and considerable loss of the brain substance. The bone in this case was comminuted. The loose portions were removed; the sides of the wound were drawn together with strips of plaster; and the same treatment was carried out as in the other cases. This lad also made an excellent and rapid cure, without any untoward symptom.

REMARKS. In the last two cases, there was considerable depression of the skull, which was not interfered with, simply because there were no symptoms that called for it; and yet both made an uninterrupted progress to recovery. In short, the treatment recommended by Abernethy was carried out; viz., "Whenever the patient retains his senses perfectly, I should think it improper to trephine him, unless symptoms arose which indicated the necessity of it." Sir Astley Cooper, Dupuytren, and Liston, were of the same opinion. I remember a case in point in the practice of the last named surgeon, when I was a student at University College Hospital. A railway

guard was brought into the Hospital, with a fracture and depression running right across the occipital bone. The depression was deep enough to bury the three fingers in. The man, after a time, was perfectly conscious, and told how the accident happened, which was as follows. He was sitting on his seat at the top of a carriage, with his back to the engine; and, while the train was running at full speed, the back of his head was struck against the arch of a bridge. Mr. Liston did not interfere with it; and the man left the hospital well. Sir B. Brodie and Velpeau also are of the same opinion as the other mentioned surgeons. Sir Benjamin Brodie says: "The removal of a part of the cranium is not to be viewed as a trifling matter, or as an operation which we are warranted in performing without a very sufficient reason; it is most prudent to abstain from the use of the trephine where there is fracture with depression of the cranium, producing at the time no unfavourable symptoms."

I think I have adduced sufficient evidence to show that, in cases of fracture of the skull, with depression, causing symptoms of pressure on the brain, whether it be the milder state of paralysis, or the severer one of coma, there is only one plan of treatment to be adopted; viz., to trephine and elevate. When, however, that injury is not accompanied by any untoward symptoms, we shall give the patient a better chance of recovery by not meddling with the depressed bone, but trusting to nature, at the same time keeping a strict watch for the first indication of anything going wrong in the circulation, and adopting such an amount of antiphlogistic treatment as will check it.

Original Communications.

THE PHYSIOLOGY, PATHOLOGY, AND THERAPEUTICS OF THE MOTOR FUNCTIONS OF THE UTERUS.

By H. HANNOTTE VERNON, M.D., Physician to the Great Northern Hospital; Physician to the Blenheim Dispensary; formerly Resident-Accoucheur to St. Mary's Hospital.

[Continued from page 585.]

PART II.—PATHOLOGY.

A PHYSIOLOGICAL analysis of labour is the fittest introduction to an exposition of the pathological conditions which affect the motor functions of the uterus, whether these be of such a nature as to suppress, diminish, or excite them. It may further be said that uterine motor physiology is, in reality, the key to uterine motor pathology. An aberrant form of motor action of the uterus is not something having an independent existence; it is an altered mode of action developed upon a physiological basis. The elements of all modes of uterine motor action antedate morbid actions; they are preexistent to the latter; and these are developments of, or are engrafted upon, them. It will be endeavoured to make as rigorous an application of the physiological analysis contained in the last paper to the pathology of the subject as possible.

FIRST PHYSIOLOGICAL BASIS.

Peripheral arrangements of Nerve endowed with Sensibility: either Cerebro-spinal or Sympathetic.

PATHOLOGICAL DEVELOPMENT.

The morbid conditions which arise out of this first element of uterine motor action may be included in two general ideas: *Hyperæsthesia* and *Hypæsthesia*; that is to say, exaltation and diminution of sensibility. These negative and positive developments of the physiological condition may be confined to such

cerebro-spinal and sympathetic nerve-terminations as pertain strictly to the uterus itself. Or it may happen, that the peripheral arrangements of nerve, supplying organs in close sympathy with the uterus, may be in a state of morbid sensibility, and reflected irritations may thus supply the place of those purely local actions. Hypæsthetic conditions of organs in sympathy with the uterus would appear to be not worth considering; and the same may, perhaps, be said even of the uterus itself, with but little reservation, inasmuch as defective polarity of nervous centres completely overrides and obscures defective irritability of nerve-terminations. With regard, however, to *hyperæsthetic* states of nerve-terminations, the case is very different. A very large number of the cases of spasmodic, painful, and irregular contractions of the uterus, which fall under the observation of the obstetrician, are of this nature.

As regards the uterus itself, it may be stated that the remnants of antecedent ulcerations, abrasions, and indurations, give rise to a large proportion of those cases of uterine mobility which depend upon eccentric irritations. When I speak of remnants of inflammatory actions, it is because, so far as my own individual experience will carry me, I can, with but very few exceptions, only refer to conditions which are left behind after graver morbid states have subsided. Notwithstanding the most profuse leucorrhœa, having its source as well from the cervico-uterine surface in the vagina as from the vagina itself, it most rarely happens that any breach of continuity of surface affects the pregnant cervix uteri; indurations are of a more persistent nature, but even here it is curious to observe how, as pregnancy advances, they become softened, partially removed, and in a great measure reduced to comparative insignificance, though formerly of no small extent and accompanied by symptoms of no small acerbity. The general result of such morbid states as those referred to is an engorged and irritable state of the cervix uteri and vagina, both of which frequently pour out an abundant and acrid discharge. Constitutional syphilis declares itself in a very similar manner, only here the morbid state arises during pregnancy and subsides shortly after delivery; it is essentially a disease of pregnancy, called into existence apparently by the general excitation of the uterine economy. Plethora of the uterus would appear to act in a most capricious manner; or, to speak more correctly, it should be said that a general supervascular state of that organ affects its motor functions differently at different stages of labour. In the act of dilatation (generally so called) the influence of uterine plethora is declared in the form of lingering and persistent pains, having few and short remissions; when the more energetic throes of advancing parturition should succeed these, it is found that they are inefficient, short as regards muscular contraction, long as regards pain, and partaking of a crampy nature, very distressing to the patient. Inflammations of the placenta and amniotic sac are not generally recognised as influencing the act of labour, but I am persuaded that, in premature labours especially, it frequently happens that much suffering accrues to women from undiscovered conditions of these structures. The various forms of tumour which affect the uterus almost invariably exalt its irritability. Fibrous tumours, polypus, scirrhus, etc., are attended by perverted forms of motor action. Their influence arises partly from their effect upon the vascular condition of the organ they inhabit, and partly from their mechanical influence.

Passing on from the uterus itself and its contents, we are next met by irritations reflected from other organs which are in close sympathy with the uterus, and are themselves in a condition of hyperæsthesia, either temporary or persistent. The ovaries, the bladder, the rectum, the kidneys, the stomach, and the mammæ are the organs with which we are concerned. Subacute inflammation of the ovaries, and that chronic irritability which appears to accompany many persons through the whole period of fruitfulness, though not, as far as we know, very intimately related to labour at the full period of gestation, does undoubtedly exercise a powerful influence over the motor actions of the uterus in the earlier months of pregnancy. Acute pain during menstruation, membranous dysmenorrhœa, abortion, and premature labour, are nothing more than consecutive terms in a series of progressive pathological developments essentially identical in their nature. Such morbid excitations act either purely in a reflex manner, or by frequent recurrence and long persistence, they throw the ganglia of the uterus proper into a state of exalted polarity. It is in this manner that eccentric and centric hyperæsthesiæ become so closely related. The comparatively rare affection, calculus in the female, induces an excitable condition of the uterus; and the commoner vesical prolapse is no unfrequent source of increased

uterine mobility. Fissure of the rectum, hæmorrhoids, general varicosity of the rectal veins, and lodgments of scybalous masses, exercise a prejudicial effect upon the motor functions of the uterus. The same may be said of renal congestions, and more especially of that form of renal irritation which co-exists with the albuminuria of pregnancy. Every case of labour which has fallen under my observation, in connexion with this condition, has been more than ordinarily painful; indeed, a more marked illustration of the manner in which reflected irritations influence the early stages of uterine motor action can hardly be adduced. Hyperæsthetic conditions of the gastric nerves are similarly related to uterine action. It is true that both the emesis of pregnancy and the emesis of the first stage of labour are sympathetic actions, but there is a considerable difference in the way in which they severally affect labour. The vomiting of labour is purely a symptomatic sympathy, indicative of a process going on elsewhere; the persistent vomiting of pregnancy is a manifestation of hyperæsthesia of the gastric nerves, which, however produced and established, is capable of reacting upon the uterus; and such indeed is the fact in practice—labour occurring in women who have been the subjects of constant vomiting during pregnancy is usually marked by irregular and painful action of the uterus. With regard to the mammæ, I can only speak to having seen two cases in which they were in an irritable and extremely vascular state during labour; but in these two cases the pains of the first stage of labour were peculiarly incessant and distressing.

The effect of all these hyperæsthesiæ is expended principally upon the earlier stages of labour. The more purely peristaltic the action of the uterus, and the more it acts under the control of the sympathetic only, the more marked is the effect of hyperæsthetic conditions of its own nervous apparatus, and the more obvious the influence of reflected irritations. When as labour advances and wider sympathies are called into action, when the spinal cord takes up its accessory action, when the uterus begins to act consensually with the powerful voluntary efforts of the later expulsive stages, the morbid actions of the first stage are swallowed up in the intensity of the general parturient effort. It is not to be supposed, however, that the morbid states just reviewed are wholly inoperative as regards the expulsive stage of labour; whatever influence they possess is generally exerted in the way of increasing the rapidity and vigour of the uterine contractions, sometimes to an inconvenient degree. In one point of view, however, they lose their interest, because they cease to provide the salient features of the particular case under notice, and to require the interference of the practitioner. Their importance has, in fine, passed away with the introductory stage of parturition.

SECOND PHYSIOLOGICAL BASIS.

An arrangement of Nervous Fibres capable of conveying to certain Nervous Centres the Excitor Stimuli applied to their Extremities.

SECOND PATHOLOGICAL DEVELOPMENT.

It is unnecessary to dwell upon this section of the subject further than to say that, as far as is known at present, we can speak of no morbid actions of the uterus arising out of mal-performance of the functions of the excitor nerves, beyond such as are the result of mechanical causes. Tumours of any kind pressing upon nervous trunks will, of course, in some way impede the transmission either of excitor stimuli or motor impulses. But as far as any other sources of mal-action are concerned, there is little but conjecture to go upon.

THIRD PHYSIOLOGICAL BASIS.

Various Nervous Centres: either endowed with a power of originating Motor Impulses, or of reflecting Impression conveyed to them, in the form of Motor Impulses.

THIRD PATHOLOGICAL DEVELOPMENT.

At this stage of our inquiry we arrive at the most important of the various conditions which affect the motor functions of the uterus. I shall apply to each nervous centre the antithetical ideas of *hyperæsthesia* and *hypæsthesia*. It is with the latter of these two that obstetricians are principally concerned. In considering the morbid conditions which affect peripheral arrangements of nerve, it could not but be remarked that *hyperæsthesia* was the dominant disturbing influence. Thus we light upon a broad distinction, which has a valuable practical equivalent, viz., that *eccentric* aberrations of uterine nervi-motor action are related almost solely to hyperæsthesia, while *centric* aberrations are mainly related to hypæsthesia. Six distinct nervous centres, or classes of nervous centres, were spoken of as ruling the physiological actions of the uterus,

and these same six determine in like manner its pathological actions.

1. *The Ganglia of the Uterus proper.* There having been claimed for these structures a large influence over the motions of the uterus under normal conditions, it is to be expected that much of the pathology of its aberrant operations will be referred to the same nervous centres. It appears to me to be beyond reasonable doubt, that the fundamental and essential nervous impulses which determine the contractions of the uterus issue from its own ganglia. The rhythm of such contractions, their peristaltic nature, their independence to a very large extent of the integrity of the spinal cord, their consentaneous development with the ganglia under consideration, the broad distinction which exists between the earlier contractions of the uterus and those which we know to be much influenced by the spinal cord, and, above all, the total absence of any reliable evidence that cerebro-spinal nerve-centres ever govern any rhythmical actions at all,—all these considerations, I say, appear to furnish almost irrefragable proof that, in the ganglia of the uterus proper, we have the ruling and paramount nervous centres of the uterus. The importance of these fountains of nervous energy does not by any means necessarily imply any very great complexity in the morbid states to which they are subject.

Whatever circumstances modify their endowments, the result, whether the modifying agencies act from a distance, or topically upon the ganglia, is exaltation or diminution of their polarity. But such simple morbid elements arise out of a great variety of causes. Many of these are identical with those which underlie hyperæsthetic states of the peripheral arrangements of nerve pertaining to the uterus; while others are idiosyncratic, and involve ultimate facts which can be pushed no further back in the chain of causation. As regards hyperæsthesia of the ganglia proper of the uterus, it may be remarked that such a condition is more frequently idiosyncratic than not. It is, however, not an isolated nervous phenomenon; it does not stand alone as a single manifestation of undue nervous polarity; it is in consent with a general hyperæsthesia. The persons in whom it most frequently obtains are those of great nervous mobility. Individuals whose intestinal canals answer with extraordinary promptitude to the stimulus of irritant purgatives, who are subject to palpitations, fits of hysteria, immoderate blushings, and rapid successions of emotional modality out of due proportion to the moral causes acting upon them,—such are the women whose uteri act spasmodically, in an irregular and clonic manner, or, more frequently still, so rapidly, fiercely, and independently of cerebro-spinal adjuvation, that labour is begun and ended before time has elapsed for the most hurried preparation. Cases of painless labour do from time to time come under observation, in which it is easy to satisfy ourselves that the accessory influence of the spinal cord has hardly been exerted at all, and in which the share ordinarily taken by the brain and little brain has amounted to absolutely nothing, whether in the way of sensation, volition, or co-ordination of movements. It may be urged that such cases occur only with women who have most capacious pelvis; but this consideration only fortifies the view which regards uterine motor action as essentially peristaltic, and dependent upon sympathetic, not cerebro-spinal nervous centres. The fact is, that a wide pelvis involves absence of resistance from and impingement upon those structures which are supplied with spinal nerves; and thus we have the influence of reflex spinal action in a measure eliminated, and one of those natural experiments provided to our hands which we may seek in vain to institute for ourselves artificially.

Leaving behind us these idiosyncratic cases of morbid excitability of the uterine ganglia, we come to the consideration of hyperæsthesia arising out of more strictly topical conditions. The various modifications and results of inflammatory actions going on in the uterus itself or neighbouring organs, and which produce the eccentric hyperæsthesia spoken of before, in like manner produce a morbidly excitable condition of the uterine ganglia. The anatomical juxtaposition of these diverse elements brings them both under the influence of identical causes. Moreover, irritations of organs in sympathy with the uterus are reflected to the uterine ganglia, and either act merely temporarily, or else induce a permanently exalted polarity of these centres. The details of the sources from whence such irritations are reflected have been entered into in a former section: it is unnecessary, therefore, to do more than refer to the general fact, that such remote conditions do actually throw the uterine ganglia into a state of morbid excitability.

The most important departure from normal polarity of the

centres under consideration is, however, on the negative side. In practice, hypæsthetic conditions of all kinds of nervous centres will attract the attention of the obstetrician most frequently, and require a remedy at his hands far oftener than the opposed condition of hyperæsthesia. The causes which jointly or severally produce such defective action are very numerous. Particular forms of general debility and idiosyncratic feebleness of nervous constitution will account for a large number of those cases of *inertia uteri* which encounter us in practice. In such states of the prime element of uterine motor action, the usual physiological stimuli appear quite incapable of rousing the organ to action. In other instances the immobility of the uterine ganglia is so stubborn, their polarity reduced to so low an ebb, that the most powerful artificial stimuli utterly fail to procure a single response. Oftentimes this passivity of the uterine ganglia is all that can be recognised in cases of *inertia uteri*. The most careful inquiry will fail to discover any topical or remote morbid states which can in any way bear a causative relation to absence of due excitability. Here, then, we must frequently stop and concentrate our attention upon a morbid state of sufficient simplicity, as far as our comprehension of its nature is concerned, but of terrible import to the patient as regards her chances of life. But in another category of cases ganglionic hypæsthesia of the uterus can be distinctly referred to antecedent morbid states. General plethora is very frequently at the bottom of sluggish uterine action, especially in the earlier part of labour, *i.e.*, until the fetal head is down upon, or nearly down upon, the perinaeum. Fat, gross, full blooded women present a marked contrast in the force and character of their labour pains to women of spare habit and sanguineo-nervous temperament. The vital force of such persons would appear to be almost wholly expended upon the nutritional or vegetative aspect of their functions, and innervation generally is in a languishing condition. Shock of various kinds depresses the excitability of the uterine ganglia more or less, and for a longer or shorter period of time. Operative procedures of all kinds, galvanism, and sudden birth of the fœtus, would all appear to act occasionally in this way. Hæmorrhage has a similar effect, though the importance of this cause is diminished by its providing, to a certain extent, its own remedy. Prolonged and excessive pain, whether uterine or not, will, after producing a diametrically opposite effect for a certain time, terminate in exhaustion of the irritability of the uterine ganglia. The torpor succeeding such expenditure of polarity, reminds one very forcibly of the prostration of the gymnout after its conflict with the horses driven into the water it inhabits. It would appear that defective volition exercises no small influence upon uterine action in all its stages. The influence of the encephalic centres, however, is unequally distributed amongst the several centres themselves, as well as over the periods of parturition. The voluntary movements, which are the product of hemispherical cerebration, relate more to the latter part of labour; but still there can be no doubt that even from the very commencement the will has a collateral influence upon the motor actions of the uterus, which cannot entirely be explained by reference to the law of consensual action. Direction of the mind to some subject of thought which absorbs the interest and taxes the intellect, derives from the energy of uterine action at all stages of labour from first to last. But it is to the emotional influences issuing, as we believe, from the great encephalic ganglia, that we must look principally for the action of the encephalon on the uterine movements during the purely peristaltic stage of labour. There is no emotion to which the human mind is subject which will not, if in excess, suspend the peristaltic actions of the uterus. A totally opposite effect is sometimes produced, whereof historical instances will readily occur to the reader, but these were instances in which the moral affection initiated labour. As a general rule, obstetricians are concerned with labours which, having already commenced under ordinary circumstances, become suspended by the intervention of fear, anxiety, and other emotional causes of even an opposite nature. Fatigue diminishes the polarity of all nervous centres, and concerns the uterine ganglia as it does other centres. It would be interesting, knowing what we do of the powerful influence of malarious emanations over the sympathetic system of nerves, to inquire into the manner in which the uterine motor functions are performed in agueish districts. The uterus is certainly the seat occasionally of an agueish neuralgia. Is there not some hitherto undescribed peculiarity in the motor actions of the uterus in persons whose systems have been invaded by the periodic constitution? There are some very curious facts relative to the action of quinine upon the uterus, which appear to me to give a very strong probability to

the idea, that there are such modifications of uterine action in connexion with the periodic constitution. These facts, which bear a very interesting practical, as well as theoretical, relation to the question in hand, I shall give in detail hereafter.

2. *The Sympathetic Nerves generally.* The preceding observations upon the ganglia of the uterus proper, apply for the most part to the sympathetic ganglia generally. The modifications of pathological import, arising principally out of anatomical differences, can, of course, be supplied by the reader.

It remains now to investigate the morbid states which affect the spinal cord, the encephalic ganglia, the great brain, and the little brain. Having accomplished this, I shall pass on to a consideration of the modifications of uterine motor action which arise out of morbid states of the motor nerves and the structures of the uterus itself.

[To be continued.]

THE WATERY DISCHARGES OF PREGNANT WOMEN.

By R. U. West, M.D., Alford.

As a pendant to Mr. Harrison's paper on this subject in the *BRITISH MEDICAL JOURNAL*, p. 543, I forward the following notes from my general registry of midwifery cases:—

"No. 222. *March 14th, 1837.* Breech presentation; premature; living child. The membranes gave way more than a month before delivery, and the liquor amnii escaped at different times in great gushes, each discharge being attended with pains. Portions of the membranes, in an almost putrid state, were discharged from time to time. During the continuance of this state, about five weeks, the woman was much troubled with palpitations, headache, flatulence, etc."

The case above quoted was merely an example of premature rupture of the amnion, and escape of liquor amnii—a circumstance which occurs very frequently: the labour, however, mostly following in a few days, seldom being delayed more than a fortnight. Without being exactly an example of the kind of cases which Mr. Harrison discusses, it must nevertheless be regarded as a case of *watery discharge in a pregnant woman*. To say that she was five weeks in labour, would be preposterous. The following case is more in point:—

"No. 770. *Sept. 20th, 1842.* A natural labour. A discharge of watery fluid took place from the vagina or uterus on the 27th of August, and continued in large quantities up to the time of delivery, unattended with pain. It must have been formed between the chorion and the amnion, as the latter proved to be entire at the time of the labour."

Mr. Harrison very correctly sums up his observations on the subject of these watery discharges by expressing the opinion that they may be attended with danger when the placenta is partially presenting. The following case will illustrate that opinion:—

"No. 2176. *Feb. 5th, 1854.* Hæmorrhage *ante partum*. Ergot. At 10.30 p.m., Feb. 4th, Mrs. R., of this town, was suddenly surprised by an immense gush of blood. She fainted, and was carried up stairs to bed. As I was detained at the time in attendance on another case at a considerable distance from home, I did not see her till 1.30 a.m.; meantime, she was under the care of one of my professional neighbours. On my arrival, I found the cranium presenting in the first position; the os uteri dilated to the size of a shilling, rigid, and rather thick. There were very slight pains at considerable intervals, each accompanied by a gush of slightly coloured serous fluid. I immediately ruptured the membranes, after which the flow of fluid ceased entirely. There was, however, some faintness felt occasionally; there was frequent yawning, and a very blanched countenance. I then gave a full dose of ergot. This speedily brought on nice pains, and the labour was safely completed at 4.15 a.m. The child was quite dead, probably in consequence of the hæmorrhage, as it had been felt to move just before the labour began. Immediately after the child was born, a very large firm coagulum, larger than the after-birth, was expelled. I think it probable that the gushes of pale fluid which took place with the first slight pains were composed chiefly of the serum of the blood, the coagulum of which was expelled after the birth of the child. The opening through the membranes was found to be close to the edge of the placenta. I could not feel any portion of the placenta during the labour. A considerable portion of the maternal surface of the after-birth, near the opening through the membranes, was found to

be covered with a thin layer of very adherent and firmly coagulated blood.

"During the remainder of that day, Mrs. R. felt exceedingly well, the pulse and appetite being perfectly good. The next day the pulse was quick, but there was no other unfavourable symptom. On the third day, in the morning, I found her suffering from great pain in the abdomen, with tympanitis, and great tenderness on pressure. The pulse was 140, weak; tongue clean; no shiverings; lochia and milk all right. There were frequent eructations. I ordered fomentations. She had some difficulty in micturition. I gave her—

℞ Liq. morph. acet. (Ph. Lond.) ʒss; spiritus ætheris nitrici ʒj; aquæ ad ʒiiss. M. Fiat haustus statim sumendus.

"A calomel and compound scammony powder was ordered to be taken an hour after, the bowels not having been moved since the confinement; and she was directed to go on with the following mixture.

℞ Pulv. ipecac. comp. ʒss; magnesiæ sulphatis ʒvj; spiritus ætheris nitrici ʒss; aquæ menthæ piper. ad ʒvj. M. Fiat mistura ejus sumantur cochlearia ij 3tiis horis.

"In the evening she felt better; she had less pain and tenderness; could pass urine; the bowels had acted once slightly; pulse 120. There had been no headache to-day, though some was felt last night.

"Fourth day, a.m. Pulse 125, very feeble and indistinct; no pain; tenderness and swelling nearly gone. She was flatulent, and had been sick several times. The bowels had acted three or four times in the course of the night. (*Query*—Acute tympanitis?) She complained of thirst, and was very smiling.

℞ Confectionis aromaticæ ʒiiss; tincturæ opii ʒiiss; spiritus ammoniæ aromatici ʒij; magnesiæ calcinatæ ʒj; aquæ menthæ piperitæ ad ʒvj. M. Sumat cochlearia ij 3tiis horis.

"Pulse at noon, 125, fuller; at night, 140, fluttered. The bowels were acting too much. The mixture was continued.

"Next day (fifth), the pulse was feeble and palpitating, 125-130. She had had a good night; was not sick; had no appetite; tongue clean; forehead hot. The bowels had acted again very freely after I paid my visit last night.

℞ Cretæ præparatæ ʒss; confectionis aromaticæ ʒiiss; ammoniæ sesquicarbonatis ʒss; tincturæ opii ʒij; aquæ menthæ piperitæ ad ʒviij. M. Sumat cochlearia ij 4tiis horis.

"4 p.m. She was better; pulse steadier, 120. The bowels were quieter.

"Next day (sixth), a.m., pulse 100; p.m., 90. Her appetite was returning; bowels quiet; and so she recovered rapidly."

Although not precisely a case of watery discharge during pregnancy, yet this is so far similar to Mr. Harrison's cases that it affords an example of the escape of a considerable quantity of watery fluid, in consequence of the partial detachment of the placenta. There was danger, too, both at the time of the labour and after.

Happening to be in correspondence with Dr. Ramsbotham shortly afterwards, I took occasion to send him a copy of the note above quoted, because I thought that the puerperal disease which took place bore out his views on the subject of *acute tympanitis*. As, in his reply, he comments on the circumstances attending the labour, and on the discharge of watery fluid in particular, I here append his remarks:—

"The case you oblige me with is exceedingly interesting. The placenta was evidently placed close to the os uteri; so that hæmorrhage necessarily occurred when dilatation took place. That portion of the placenta covered with the layer of tough coagulum was the part separated: this, as no doubt you know, is very general, and has been taken by Dr. Simpson as a proof that the bleeding proceeds from the placental vessels, and as an indication of the correctness of his practice in withdrawing the placenta first in cases of unavoidable hæmorrhage; but I do not think his premises correct. I have no doubt that the pale serum was, as you suppose, the more fluid part of the blood, whose coagulum remained behind in the uterus. I have seen this very many times; and usually the distension occasioned by the collection of coagulum in this way has been attended by violent spasmodic pains."

In the three cases given above, we have examples of three different forms under which we may have an escape of fluid more or less aqueous during pregnancy. In the first, it was undoubtedly liquor amnii; in the second, it was probably a redundant fluid between the two membranes; in the last, it was the serum of the blood which was extravasated through premature detachment of the placenta. It is obvious that, with re-