

PERISCOPIC REVIEW.

MIDWIFERY AND DISEASES OF WOMEN.

THE INTERNAL SURFACE OF THE UTERUS AFTER DELIVERY.

In the *British and Foreign Medico-Chirurgical Review* for October 1853, we find an original communication by Dr. MATTHEWS DUNCAN, of Edinburgh, on the state of the internal surface of the uterus after delivery.

This surface, the author says, may be divided into three principal parts: 1. The inner surface of the cervix; 2. The site of the insertion of the placenta; 3. The rest of the inner surface of the body of the organ.

The first of these parts is excluded from discussion at present; for the cervix uteri differs so materially from the body, that it may with propriety be described as almost a separate organ; and the researches of M. Stoltz and others show that the cervix does not become developed so as to form part of the cavity of the uterus.

Dr. Duncan alludes to the opinion entertained by obstetricians, that the entire decidua passes away after parturition, leaving the muscular tissue bare, and that a new mucous membrane is formed by an inflammatory process. This view he regards as paradoxical.

He describes the mucous membrane of the cavity of the uterus in early pregnancy as "very highly developed, forming a rich, soft lining to its inner surface, and contributing greatly to the increased thickness of the parietes of the organ at this time. When the walls of the uterus are examined in advanced pregnancy, the thickness of this structure is found to be greatly diminished, even when the whole structures between the chorion and the muscular tissue of the organ—that is, the proper mucous membrane, or decidua vera, and in addition, the decidua reflexa—are included in the measurement. If, in a woman who has died in advanced pregnancy, the membranes are separated from the uterus, the mucous membrane is left adhering to the walls of the womb; only its surface is lacerated and irregular."

"In parturition a similar process takes place, with this difference, that after the removal or expulsion of the ovum, the uterus is reduced by its contractions to dimensions very small compared to those it had whilst expanded. The result of this contraction, upon the mucous membrane, resembles its effect on the muscular tissue of the organ. In both, the diminution of superficial extent is the result partly of the expulsion of the large mass of blood contained in their very large vessels, but chiefly of the assumption of a greatly increased thickness of wall. After parturition, the mucous membrane of the uterus is rough and irregular on the surface, and covered over with blood and adherent coagula. As the uterus diminishes in size, its thickness increases."

Dr. Duncan describes the appearance of the uterus after delivery in several cases in which he had an opportunity of examining the organ. The result of these examinations shows that "after delivery the muscular fibres of the uterus are not laid bare, but are covered with a mucous membrane, which is undoubtedly the remains of the uterine decidua." The mucous membrane is found thicker at the insertion of the placenta than elsewhere: it is there marked by elevations and depressions, and by the open mouths of the uterine veins.

In the cow, and many other quadrupeds, the fetal portion alone of the placenta is discharged; while the afterbirth of the human female consists of both the fetal and the maternal portion, the latter including a development of the uterine vessels, and the layer of decidua covering them. But even in women, the anatomical imitation of the process which occurs in the cow is possible: William Hunter performed this operation in a foetus of four months.

"The membrane", Dr. Duncan writes with regard to that

* "These facts I have verified by means of several dissections preserved in the late Dr. Campbell's museum. Albinus, in his Atlas of Anatomical Plates, describes the same results of a similar dissection. See Uteri Gravid, Tab. vii. His words of description are: 'Ovum exentum. . . . Uteri pars interior, mollis, tenera, veluti spongiosa, canosaque: cui ovum mollior adheret, involuero suo membrano.' See also W. Hunter, Anatomical Description of the Grav Uterus, ed. 1843. With his admirable accuracy, W. Hunter describes (p. 47) the adhesion of the decidua to the muscular fibres of the uterus as being 'rather stronger than the adhesion between its external (decidua vera) and internal stratum (decidua reflexa), which we may presume is the reason that in labour it so commonly leaves a stratum upon the inside of the uterus.' And he elsewhere makes the general statement, that 'one stratum of the decidua is always left upon the uterus after delivery.' See also J. F. Meckel, Descriptive Anatomy (Eng. trans.), vol. ii, p. 596."

which lines the inner surface of the uterus after delivery, "is easily distinguished from the muscular tissue of the uterus by its softness, and by difference of colour in a cross section. It is in some cases so soft that its surface can with facility be almost completely rubbed off or brushed off the subjacent tissue. And if this manipulation be practised upon it, the investigator will assuredly find no difficulty in discovering the fibrous tissue to be bare, like the muscles in an amputated stump. This softness and friability is undoubtedly one of its characters which has given rise to the erroneous opinions of authors; for we frequently find them speaking of removing a soft membranous or flaky structure, in order, as they imagined, to display the real internal surface or the womb. For example, W. Hunter, in describing a dissection of the uterus of a woman who died at the end of the ninth month without being in labour, states that, finding the internal surface of the uterus everywhere covered with a thin stratum of decidua, he rubbed off the tender membrane with a cloth, in order to expose the subjacent muscular structure. But numerous later investigators have not so correctly appreciated, as W. Hunter did, the nature of the structure they removed in a like manner, and which they believed to be effused lymph, false membrane, bloody coagula, or patches of decidua having no necessary existence there, and ready to be discharged or rubbed off in order to expose the muscular fibres, which they erroneously believed came to be exposed after parturition. We thus find that here, as elsewhere, W. Hunter's accounts of his dissections are still in our day true in almost every particular. But whilst there can be no doubt of the truth of W. Hunter's anatomical description of this part, exception may very justly be taken to the opinion he expresses as to this residuary decidua. He states his belief that 'most of it dissolves, and comes away with the lochia.' Now there is every probability that this takes place in a very different way. The residuary decidua forms the mucous lining of the uterus, and may pass away from the uterus, not in mass, but in the regular insensible exfoliation of such structures, or be removed by the vessels in its substance in the ordinary course of nutrition and absorption. Moreover, when we inquire into the real nature of the discharges from the uterus after delivery, we shall find that they are of a nature and character quite antagonistic to the notions entertained as to the denudation of the muscular fibres, and the formation of a new mucous membrane after the deposition of a false membrane over the supposed wound, and under the influence of an inflammatory process."

The lochia in the healthy female have no resemblance to purulent discharge. They have been frequently and correctly described as presenting three different conditions, in correspondence with as many stages—*lochia cruenta*, *lochia serosa*, and *lochia alba, vel mucosa, vel lactea*: the last is sometimes also called *purulenta*; but this is more from theoretical notions than from any resemblance to purulent discharge. Pus sometimes may be observed in the lochia as a result of local inflammation, or from healing lacerations: but it is not a constituent of healthy lochia; it does not appear in them under the microscope; and, when present, it is readily discovered by its characters.

Dr. Duncan then goes on to criticise the custom, general in late years, of "comparing the internal surface of the body of the uterus after delivery to a great wound, or solution of continuity." This analogy originated in modern times with Van Swieten; who, however, seems to have not gone nearly so far as some of his followers. He "points out that after the separation of the chorion and placenta, the inside of the uterus is left covered with the remains of the *tunica cellulosa*, or *substantia cellulosa*, which separates the chorion from the proper tissue of the uterus. He does not describe the uterine muscular fibres as being laid bare, but states that, in addition to the rupture of numerous large vessels, there is—in his own words—*soluta cohasio, recens, cruenta, partis mollis; id est vulnus*; and then he goes on to point out the particulars in which this solution of continuity differs from an ordinary wound. In a subsequent paragraph he states his belief that the fever commonly called *febris lactea* does not arise from the afflux of milk to the mamma; so much as from the superficial suppuration which he describes as taking place on the internal uterine surfaces."

M. Cruveilhier has been most explicit in asserting the denudation of the muscular structure of the uterus: and his words are quoted with approval by Drs. Fergusson, Rigby, and many others. Dr. Duncan points out that John Hunter, Cruveilhier, and others, have fallen into error in assuming the occurrence of inflammation during the natural processes of pregnancy and parturition.

To M. Cruveilhier's assertion that the "muscular fibres of

the uterus are everywhere exposed" after delivery, the dissections described by himself, Fergusson, and others, form a marked contradiction; for there is found and mentioned an inner membrane of the uterus covering its muscular fibres.

"Finally", Dr. Duncan writes, "did there exist after every delivery a wound of the enormous dimensions of the internal surface of the uterus—dimensions not inferior to those of the wound produced in amputation of the thigh, it is difficult to conceive how parturient females should escape the frightful mortality succeeding that operation, or the like. It would be difficult or impossible to explain why, instead of one in every three or four dying as after amputation of the thigh, there should be only one in every two or three hundred. It can scarcely be asserted that the shock produced, and the circumstances of the supposed uterine wound, are a whit more favourable to recovery in the obstetric than in the surgical patient. The explanation lies in the fact that the chief analogy of the internal uterine surface after delivery, is not with a stump, so far as it consists of incised and denuded tissues, but only in both surfaces presenting numerous open veins liable to become inflamed, or to absorb the obnoxious materials which may be brought into contact with them. And it is to this anatomical circumstance that are traceable most of the cases of death in childbed."

FETUS IN UTERO SUPPOSED TO BE KILLED BY LIGHTNING.

Dr. CARITHERS, of Hendricksville, relates a case in a medical periodical of the United States (*Southern Med. and Surg. Journal*), in which he avers that a fetus *in utero* was killed by lightning. He states that Mrs. F., aged about 40, in good health, and eight months advanced in pregnancy, received on the 10th of June, 1852, a severe shock from a streak of lightning, from which she recovered in a few hours, when she was attacked with labour pains. On the doctor's arrival, he found her suffering with sharp pains. On examination, *per vaginam*, no dilation of the os uteri had taken place. He bled her freely, and ordered her an enema of a gill of starch, with a teaspoonful of laudanum, and to take a quarter of a grain of sulphate of morphia every half hour, until she was relieved from pain. After taking the fourth dose the pain subsided. He ordered her to take on the following morning an ounce of castor oil. At two P.M., it had acted freely, and at four P.M., she was resting well. She was delivered on the tenth day after she complained of being very unwell. The child was dead, and from its appearance had been so from the time the mother felt the shock.

ARREST OF DEVELOPMENT IN ONE FOOT ASCRIBED BY THE MOTHER TO A FRIGHT.

The following case is reported (in the *American Journal of Medical Science* of April), by Dr. STORRER of Boston. A lady, three or four months after her marriage, was much affected at seeing a hen injured by a stone thrown by a boy. The stone broke one of the hen's legs, and injured its lower portion. She continually dwelt upon the subject, insisting that her child, when born, would be deformed. In due course she was confined; and it was found that one foot of the child presented evidence of arrested development. The child, perfectly well formed in other respects, exhibited upon one of the lower extremities simply a heel, and the rudiments of the five toes, at the extremities of which were placed minute nails. Dr. Storrer said to the Medical Society of Boston that the striking points in this case were, that the woman had dwelt during the whole time which intervened between the scene with the hen and her delivery upon the certainty of her child being deformed, and that upon its birth she had insisted upon minutely examining it. We really do not see anything remarkable in all this: for women are constantly fancying that they are to give birth to monsters, and also insisting on minutely inspecting what is born, when there is no blemish of any kind discoverable upon their offspring. The case of Dr. Storrer and many others related by those who heard it read, and which with his were attributed to the mental influence of the mother upon the fetus, are certainly, from the vastness of every day negative evidence, rendered of small scientific value as evidence in favour of the theory of mental influence. A long discussion on Dr. Storrer's case was therefore very appropriately closed by Dr. Gould mentioning a "set-off" case. He said that "on last Monday he had attended a woman, who, at the birth of her child was very anxious that its palate should be examined, she having early in her pregnancy seen a person with very disagreeable countenance from deformity of the palate. She had been very unpleasantly affected by the sight: but notwithstanding her very strong apprehension, no effects were visible on the child."

INABILITY TO SWALLOW IN AN INFANT.

In the *American Journal of Medical Science* for July 1853, Dr. J. L. PIERCE, of Bucks county, Pennsylvania, describes the following case.

On the 18th of December, 1830, he was sent for to Mrs. James, in labour of her eighth child. At 11 A.M. she was delivered of a fine large infant, weighing ten pounds. He discovered at birth a tumour on the right epigastrium, extending about a quarter of an inch to the left side of the ensiform cartilage, and its upper edge just below the cartilage of the ribs. It was about one and a half inches in diameter, and nearly circular. No other extraordinary appearance was noticed. On visiting the patient next morning, Dr. Pierce was informed that the child had not taken the breast; and on the succeeding morning the same observation was repeated, with the addition that he did not swallow. The tumour had the same appearance as at first: it was evidently not connected with the internal parts, and was taken for a wen. The child moaned constantly, which the mother stated had succeeded to an incessant crying. There was a constant frothing at the mouth; which Dr. Pierce regarded as produced by the saliva which ought to have been swallowed. With a teaspoon, attempts were in vain made to cause him to swallow some water. On the afternoon of the third day, Professor Hodge saw the child in consultation with Dr. Pierce. He regarded the inability to swallow as connected with the nervous system; founding his opinion chiefly upon a fulness of the brain at the anterior fontanelle. The treatment resolved on was to clear out the bowels with warm water enemata; and then to administer lamb broth injections every three or four hours. After the second warm water injection the child was applied to the breast, and was found able to swallow. It took the breast freely, and experienced no further inconvenience.

CONGENITAL DISPLACEMENT OF THE HEAD OF THE FEMUR ON BOTH SIDES.

In the *Monthly Journal of Medical Science* for May 1853, it is stated that Dr. MERCER ADAMS exhibited to the Physiological Society of Edinburgh, a dissection displaying congenital displacement of the head of the femur on both sides. The head of the femur was displaced from a well-formed cotyloid cavity, and lay on the dorsum of the ilium, where it had formed for itself a new cartilaginous acetabulum. The muscles of the thigh and gluteal region were very much atrophied and contracted. Owing to the contraction of the rectus femoris, the patella and head of the tibia were drawn up over the condyles of the femur, and the knee-joint in consequence could not be flexed. The axis of the neck of the femur was abnormal, being placed nearly horizontally in relation to the shaft of the bone, instead of its natural oblique diameter. The ligamentum teres was elongated, thicker and stronger than is usual in fetal life. This seemed to confirm the view that its function is purely suspensory, and evidenced in a remarkable manner the provision made by nature to counterbalance the malformation; for had this child lived, the whole weight of the body must necessarily have been supported by this ligament, which was formed of unusual strength for this end. From the immobility of the knee-joint, the fetus had been unable to assume its normal ovoid form while *in utero*, and accordingly a false joint had been formed in the lumbar region of the vertebral column, to enable the child to adapt itself to the cavity of the uterus. Mr. Adams considered that the displacement had been caused by the abnormal retraction exercised on the head of the bone by the contracted condition of the muscles attached to it. The position of the fetus *in utero*, as it lies with the legs flexed on the abdomen, was of all others the position which would predispose the head of the femur to slip out of the acetabulum, and to mount upwards and backwards, as in this case, on the dorsum of the ilium.

PRACTICE OF MEDICINE AND PATHOLOGY.

THE EXTERNAL USE OF OIL IN THE TREATMENT OF SCROFULA AND PHTHISIS.

Dr. SIMPSON, of Edinburgh, has elaborately shown in the *Monthly Journal of Medical Science* for October 1853, that the popular belief that the greasy workers in cloth factories are a healthy class, and remarkably exempt from scrofulous disease, is well founded on many facts. We do not know of any treatment more useful for puny scrofulous children than a thorough nightly inunction after a tepid bath. The system never disagrees, and is compatible with the internal use of cod-liver oil, iodide of iron, or any other suitable medicine. The inunction never disagrees; but from its soiling the linen, it is not easy to get mothers and nurses to carry it out.