

men of such different culture, or under circumstances of so great diversity. Never were intellects of a higher kind engaged in the study of our art. And, what is still more hopeful, we find that with much observation there is little theorizing. Men are now content to proceed upon the solid ground of experience and fact, anxious rather to

“Lay great bases for eternity,”

than to erect unsubstantial and unenduring fabrics of speculation.

Looking forward to the future of our art, I think of it as going onward in sedulous, intelligent, honest investigation of the myriad varieties of the action and suffering of the human body; in the unceasing search after the means by which disease may be lightened or removed, proceeding slowly, it may be, but always on the solid basis of patient, unwearied observation, unhasting, but also unresting.

I think of it, not as quickened by higher motives or directed towards nobler aims than now, for humanity and benevolence are of the essence of the profession of medicine; but as ever gaining truer conceptions of the processes of health and of disease, and deeper insight into their nature; as laying broad and deep the foundations of a structure of knowledge from which, in “an ampler ether, a diviner air,” wider views of life and of its manifestations may be obtained.

I think of the conditions of health becoming defined; of the seminal principles of disease becoming recognized; of some medical Newton of the future unveiling for us the mystery of vitality; and, finally, of the noblest and crowning triumph of our art, in the discovery of better, surer, and wider means of preventing, mitigating, or curing disease.

“So from the root
Springs lighter the green stalk, from thence the leaves
More aery; last, the bright consummate flower.”

ART. XII.—*On Uterine Hydatidiform Disease, or Cystic Degeneration of the Ovum.* By THOMAS MORE MADDEN, M.R.I.A., L.K. & Q.C.P.I., M.R.C.S. Eng., Assistant Physician Rotundo Hospital.

THE subject of the following communication is one which presents some of the most obscure points connected with obstetric science,

the disease in question being comparatively rare, and very little being as yet ascertained as to its pathology, or the causes of its occurrence. Sir James Simpson mentions only one case of hydatid ovum in his "Obstetric Memoirs." Drs. Hardy and M'Clintock, in their "Report of the Practice of the Rotundo Hospital" during a term of three years, in which an account is given of 6,634 cases of parturition, speak of only one case of uterine hydatids. Dr. Meadows, in his "Manual of Midwifery," tells us that he has met with but two cases of this kind. Drs. Sinclair and Johnston, in their "Practical Midwifery, comprising an Account of 13,748 Deliveries in the Dublin Lying-in Hospital," give the particulars of only four cases of hydatid delivery, which took place in the hospital during the mastership of the late Dr. Shekleton. And in his treatise on "Diseases of Women," Dr. M'Clintock, after an experience of ten years in connexion with the Dublin Lying-in Hospital, tells us that he has met but nine cases of this nature. Therefore, as it seems to me the duty of every practitioner who encounters any case not commonly witnessed to place the facts he may observe on record, I now submit the particulars of two cases of uterine hydatidiform disease, one of which came under my notice several years ago, and the other of which occurred very recently, and I have added some observations which have suggested themselves to me, and a sketch of the literature of this very obscure subject, which I venture to hope may be of interest to those who devote themselves to this branch of medical science.

CASE I.—On the 4th of October, 1860, I was requested to visit Mrs. K., who, I was informed, was threatened with a miscarriage. She was twenty-two years of age, and had previously given birth to two children at the full time. She stated that she believed herself to be five months pregnant, and her abdomen presented the ordinary appearance of a woman about that time advanced in pregnancy. For three days before I saw her there had been a considerable amount of clotted blood discharged from the uterus, and the midwife assured me that she had distinctly felt the placenta presenting. On examination, however, I found the os small and rigid, and discovered the supposed placenta to be nothing but a rather firm clot. Her pulse was extremely weak and thready, and I gave her an opiate draught and employed cold applications to the vulva. In about two hours from this time a larger clot than had yet appeared was discharged, together with some fluid blood, and was followed

by a large mass of hydatids and fresh clots, which filled a large basin. These hydatids were of the usual character of such formations, though some of them were larger than those generally met with, consisting of pedunculated spheroidal cysts, varying in size from a currant to a plum. As the hydatidiform mass was very slowly expelled, a dose of ergot was administered, and the discharge continued at intervals for upwards of an hour. When it had ceased, and the uterus, stimulated by pressure with a cold hand, had firmly contracted, I bound her up in the usual manner. She complained greatly of after pains, but, with this exception, her recovery presented nothing worthy of notice.

CASE II.—Eliza Fox, aged fifty-three, married, the mother of fourteen children, was admitted into the Rotundo Lying-in Hospital, September 30th, 1868, suffering from hemorrhage. The history of her case, which I took down from herself, is as follows:—She was last pregnant eight years ago, and her menses have not yet ceased. For the past twelve months there had been a constant red discharge from the vagina, and at the same time her abdomen had been increasing in size; she did not, however, believe herself pregnant, owing to her time of life. During the same period occasional gushes of red watery fluid from the uterus were observed. On the 17th of September a smart attack of hemorrhage occurred, and three days later regular labour pains, as she says, set in, accompanied by hemorrhage—these occurred at long intervals; and on the 27th a large mass, which appears from her description to have consisted of hydatids, was expelled from the uterus. On the 29th the hemorrhage and pains returned, and after two hours of strong labour pains a small fetus, as she says, “about as long as her hand,” was expelled—this appears to have been blighted at an early period of pregnancy, and was followed in due course by the placenta. Some hydatids now also came away. Dr. A. Speedy was then sent for, and had her removed into this hospital. As the discharge of blood still continued, half an hour after her admission, Dr. Beatty removed a mass of hydatids from the uterus, after which the hemorrhage did not again return. These hydatids are thus described by the pupil on duty in the case book:—“She expelled several masses, varying in size from a pea to a grape; some round, others oval; the small ones rather transparent, the large ones of a straw colour; some were separate, others attached to a solid mass; evidently hydatids of the third order.” The specimens

I have preserved of these hydatids are well described in the foregoing extract from the ward book. The patient made a good recovery, and I discharged her on the 8th of October, having kept her only eight days in the hospital.

What the nature is of the pathological change which leads to the formation of these abnormal growths in the uterine cavity is a matter on which the most conflicting opinions have prevailed, and as the subject is one of some interest, practically as well as theoretically, I have now collected together the opinions of the most eminent writers, ancient and modern, on this question. The numerous theories by which the formation of inter-uterine hydatidiform masses have been accounted for may all be included in one or other of the following hypotheses, the first and most recent of which is that hydatid moles are necessarily connected with impregnation, and are the result of embryonic death and morbid growth of some portion of the ovum. The second is that hydatid moles are not connected with pregnancy at all, but are simply the result of diseased ovarian action. The last, and, perhaps, the oldest of the theories referred to, is that these vesicular uterine masses are similar in their structure and development to the true hydatids found in other parts of the body. A full and interesting account of the opinions of the ancient writers on midwifery on this subject may be found in Crooke's *Μικροεμοτραπεία*, published in 1651. And as that work is not very commonly met with at the present day, I regret that the space at my disposal only suffices for a few lines of quotation from this very curious volume. "To perfect conception," says our author, "there is further required an *ἐνκρασία* or laudable temper of the womb: for those whose wombs are either hot or cold, or moist or dry above measure, does not conceive, as saith Hippocrates. If, therefore, any of these things be wanting we cannot hope for a lawful conception, but either there will be none at all, or a depraved and vicious, such as is of the moon calf or *molla*. For Nature rather endeavoureth an imperfect and depraved conception than none at all, because she is greedy of propagation, and diligent to maintain the perpetuity of the kind of things: whereupon, rather than she will do nothing, she will endeavour anything how imperfect soever."* One of the most interesting "Exercitations," in "Harvey's Treatise on Genera-

* *Μικροεμοτραπεία*. A Description of the Body of Man, together with the Controversies and Figures thereunto belonging. By Helkiah Crooke, Doctor in Physicke, Physitian to His Majesty. Folio. London: 1651, p. 219.

tion," is that in which mention is made of this subject. Harvey observed that these substances are usually expelled in the early stage of the supposed pregnancy, and his ideas on the point appear to coincide with those of Hippocrates generally.

Hippocrates, describing the ill effects of drinking marsh water, in the treatise "*On Airs, Waters, and Places*," mentions amongst them the following:—"And further, the woman appears to be with child, and when the period of parturition arrives the fulness of the belly disappears, and this happens from dropsy of the uterus." Dr. Adams, in his learned commentary on the works of Hippocrates, referring to the foregoing passage, says:—"It may appear singular that hydatids of the womb should be peculiarly prevalent in the case of women that drink unwholesome water from marshes, and yet our author's observation is confirmed by a modern authority, as quoted by Coray:—"Il a été également prouvé par les observations des modernes, que les fausses grossesses produites par les hydatids sont très-communes dans les pays marécageux ou la plupart des habitans ont une constitution lâche, propre à l'affection scorbutique qui y est presque endémique, qu'elles se terminent plus ou moins tard par l'excretion de ces hydatids.""^b

Most modern writers on midwifery assert that these uterine hydatids are invariably dependant on impregnation. The late Dr. Montgomery, in his work on the "*Signs of Pregnancy*," says:—"My own belief then is that uterine hydatids do not occur except after sexual intercourse, and as a consequence of impregnation; never having met or heard of a case in which their presence was not accompanied or preceded by the usual symptoms of pregnancy. Still it must be confessed that our knowledge on this point is by no means sufficiently precise, nor our collection of facts sufficiently extended to warrant us in pronouncing positively on the question, or asserting decidedly in a case of suspicion that a woman was pregnant merely because she discharged hydatids from the uterus."^c Dr. M'Clintock bears still stronger testimony to the same effect. He says:—"In every example of the disease which has fallen within my own observation, or came within the sphere of my knowledge, the history and symptoms, and the anatomical appearance of the ejected mass all justified the conclusion that the disease supervened upon

^a Harvey "*On Generation*." Exercitation the 56th, p. 420. Edition of 1653.

^b Hippocrates Translated, with Annotations. By Francis Adams, LL.D. Sydenham Society edition, Vol. i., p. 197. London: 1849.

^c Dr. Montgomery "*On the Signs of Pregnancy*," p. 264. 2nd edition.

impregnation."^a Lamzweerde asserts that "*Virgines non possunt concipere vel generare molam sine copula maris.*" The same author also declares that "*Vidua non potest concipere molam virtute mariti defuncti relicta in utero, sine novo maris auxilio*"^b Madame Bovin states that these moles are degenerated ova, and that they are always the result of impregnation.^c Dr. Campbell, in his "*Midwifery*," says that, "except in one case related to him by one of his pupils, the author never heard of a case in which hydatids of the uterus were produced by an unmarried female, but always by persons in constant intercourse with their husbands."^d

Mr. Paget, in his "*Lectures on Surgical Pathology*," has given a very clear account of the pathology of this disease, which he terms "*cystic disease of the chorion.*"^e In his views on this subject Mr. Paget coincides with Dr. Mettenheimer, who holds that these cysts are merely enlarged "*chorion villi deviating from their cell form, and increasing disproportionately in size out of each of which a new vegetation of villi sprouts of the same structure, with the proper villi of the chorion.*"^f Dr. M'Clintock, whose experience of this disease is, I believe, larger than that of any other writer, concurs with Mr. Paget's opinion, and adopts his phraseology on this topic:—"As," he thinks, "this most truly expresses the pathological nature of the complaint."^g Dr. Carl Weld says:—"These serous degenerations of the villi are still more remarkable when they occur at an earlier stage of the formation of the chorion, in which case they are generally connected with a complete dissolution of the fetus. . . . We regard," he adds, "these as immature, newly developed elements of connective tissue."^h

Dr. Graily Hewitt says:—"The little vesicular bodies expelled singly from the uterus, or in series like beads, really result from

^a Dr. M'Clintock—"Clinical Memoirs on the Diseases of Women," p. 397. Dublin : 1863.

^b Lamzweerde—"Historia Naturalis Molarum Uteri," pp. 171-176. 1635.

^c Madame Bovin—"Traité Pratique des Maladies de l'Uterus, &c.," Tome i., pp. 288-293. Paris, 1833.

^d Dr. Campbell—"Introduction to the Study of Midwifery," p. 450. Edinburgh : 1833.

^e Mr. Paget—"Lectures on Surgical Pathology," pp. 417-420. London : 1863.

^f Dr. Mettenheimer—"On Cystic Disease of the Ovum." In Muller's Archiv. H. 5, p. 417.

^g Dr. M'Clintock—"Clinical Memoirs on Diseases of Women," pp. 393-410. Dublin : 1863.

^h Dr. Carl Weld—"Pathological Histology," p. 174. London : 1855.

certain alterations in the chorion villi, and are always the result of conception." Dr. Hewitt also maintains that in such cases the fetus dies first, and that then the chorion villi becoming altered, and not merely arrested in their development, the result is the formation of the so-called hydatidiform or vesicular mole.^a Dr. Koeberle sustains this theory in a paper published about the same time as Dr. Graily Hewitt's memoir. Dr. Koeberle treats of the disease under the term of "internal abortion of the fetus," by which he means "the death of the fetus in utero at any period of pregnancy while its coverings continue to grow, and the fetus itself degenerates, or is mummified."^b Dr. Braxton Hicks considers that the formation of hydatidiform masses in the uterus depends on a continuation of the growth of the villi after the normal type, and is not due to any superadded impulse, as is implied in the term "proliferous cyst."^c Dr. Churchill says:—"There may be a form of hydatids not the result of impregnation, yet in the majority of cases it is probable that moles, properly so called, whether blighted conceptions, fleshy moles, or hydatids, are truly consequent upon sexual intercourse and impregnation; but in the practical application of this judgment to forensic medicine, we must not forget that this does not imply criminality or impropriety in every case; as, for instance, a widow may have conceived during the lifetime of her husband, and the death of the embryo not having been followed by the expulsion of the ovum, it may remain in utero until after the death of the husband, and then be discharged, without the slightest suspicion attaching itself to her conduct."^d

A theory has been put forward by Dr. Graily Hewitt,^e and sustained by Dr. J. Byrne^f and other recent writers, to the effect that in cases of hydatidiform disease of the ovum, "If the death of the fetus be postponed until the formation of the fetal placenta has commenced, the hydatidiform degeneration will be necessarily limited to that part of the chorion which is in contact with the decidua serotina." Now this conjecture is, in fact, a revival of the old opinion that uterine hydatids are formed in the placental

^a Dr. Graily Hewitt—*On Diseases of Women*, p. 74. London: 1863. And also in *Obstetrical Transactions*, Vol. i., p. 249. London: 1859.

^b Dr. Koeberle—*In Presse Med.*, 1858, p. 45. And *Sydenham Soc. Year Book*, 1859, p. 353.

^c Dr. Braxton Hicks in *Guy's Hospital Reports*, 1865.

^d Dr. Churchill "*On Diseases of Women*," page 284. Dublin, 1864.

^e Dr. Graily Hewitt in *Transactions of London Obstetrical Society*.

^f Dr. J. Byrne in *Dublin Quarterly Journal of Medical Science*, 1865, p. 464.

substance. Thus Ruysch, the celebrated Dutch anatomist of the 17th century, speaks of uterine hydatids originating in the placental structure:—*Hæc recenta moles placentæ, penitus amittens genuinam suam indolem, quia est vasorum sanguineorum contextus, integro suo corpore mutatur in congeriem hydatidum.* Dr. Denman says:—"These (hydatids) have been supposed to proceed from coagula of blood, or portions of the placenta remaining in the uterus: and the opinion is generally true; but there is sometimes reason for thinking that they are an original production of the uterus, independent of such accidental circumstances, and sometimes the precursors of organic disease in that part."^b

In Dr. Wm. Hunter's lectures on the gravid uterus, delivered in 1765, and cited by Dr. Davis, the following mention is made of hydatid disease of the uterus:—"I have seen a placenta in the fourth month all degenerating into hydatids. There are two kinds, one where the little hydatids are distinct and detached, the other where they hang together in things like bunches of currants. This last sort is the most common in the uterus. They are most common in the placenta, but they may be in other parts of the uterus. Sometimes there are vast heaps of them in the cavity of the uterus, and no remains of the placenta. I ventured, from seeing hydatids coming away from the uterus, to say that the woman was with child, because they most commonly attended the placenta. I have seen pailfuls of hydatids come away from the uterus with pains, the placenta and fetus being thus converted. They are generally the accompaniments, as also probably the results, of blighted and other diseased forms of eventually unproductive gestation."^c

Hydatidiform disease of the placenta is spoken of by Sir Edward Home, who regards it as a not uncommon cause of miscarriage—"For," he says, "when it takes place the natural healthy actions for the support of the fetus are so much impeded that its growth is arrested. This evidently happened in a case published, with an engraving of the placenta and fetus, by Dr. Denman; and when the patient does not early miscarry the fetus disappears, and in all the instances in which miscarriage has taken place in a more

^a Ruysch (Frederici)—*Thesaurus Anatomicus. Pars. Secundus, Tom. Primus*, p. 47. Amstelodami: 1710.

^b Denman—"Introduction to the Practice of Midwifery," Vol. i., p. 117. London: 1805.

^c Dr. Davis—"Obstetric Medicine," p. 676.

advanced stage of pregnancy, I believe no fetus has been found.”^a

Dr. Burns says:—“In a great majority of cases hydatids are found in the placenta of a blighted ovum, and accordingly the symptoms at first are exactly the same with those of pregnancy.”^b

Dr. Blundell says:—“Hydatids sometimes form in the ovum and (if I may be allowed the expression) devour it; sometimes a part only being converted into their substance, so that they lie embedded and concealed in the placental structure; sometimes the whole, or with the exception of a few vestiges being consumed, so that in place of the ovum nothing but these animalcules remains in the uterus.”^c

To explain the production of uterine hydatids by the assertion that they are merely enlargements or distentions of serous or mucous follicles, is, I fear, but to explain *ignotum per ignotius*, leaving the matter in its original obscurity. Under conditions of healthy nutrition we know that the animal fluids tend to resolve themselves into organized structures, but under conditions of unhealthy nutrition or assimilation the property inherent in the nutritive fluids, by which they tend to form organized structures analogous in character to the part in which they are deposited, is suspended, and, the principle of organization still existing, the result is the formation of heterologous structures, that is, of tissues essentially different from those which would be formed in the same part by healthy vital action. Thus structures are formed either of a malignant character, such as cancer or tubercle, or of a low organization, as in the case of the hydatidiform masses which are occasionally formed in the uterus.

The theory that hydatidiform moles of the uterus are formed by the degeneration of transformed chorion villi of a blighted fetus, although it may be applicable to many cases, is, I think, clearly disproved (as a universal law) by the numerous cases on record in which uterine hydatids were expelled by unmarried women whose chastity was unimpeachable. I therefore think it by no means improbable that some of these instances might be accounted for on the supposition that a morbid action or monstrous growth may occur

^a Home—“In Transactions of a Society for Improving Medical and Chirurgical Knowledge,” Vol. ii., p. 300.

^b Burns—“Principles of Midwifery,” p. 135, 10th edition. London : 1843.

^c Blundell’s “Principles and Practice of Obstetric Medicine.” Edited by Drs. Lee and Rogers, p. 250.

in one of the Graafian vesicles, which modern physiology has shown are discharged from the ovaries at each menstrual period, and that this hydatidiform disease of the unimpregnated ovum may be in some way connected with ovarian disease.

Dr. Samuel Ashwell, in his treatise "On the Diseases of Women," speaking of the vesicular mole of the uterus, says:—"I have seen, at least, one example where they were the result of diseased action of the uterine lining membrane, independently of sexual intercourse. The patient was the widow of a surgeon, and of undoubted reputation. Her husband had been dead two years and a half, when the abdomen began to enlarge. She had nausea, but no vomiting, from which she had always suffered in her pregnancies. The increase of size was very rapid, and at three months and a half from the first stoppages of menstruation, the bulk of the uterus had reached that of a seven months' pregnancy. The abdominal tumour was flaccid, and the os closed. At the fourth month after more than ordinary exertion there was a gush of blood from the vagina, followed by the immediate escape of a considerable quantity of vesicular hydatids. The recovery was good. Iron was afterwards given. She was sent to the sea-side, and now, at the expiration of several years, there has been no return of the malady. Mr. Douglas Fox, Surgeon to the Derbyshire Infirmary, gave me the particulars of a case in which a large mass of vesicular hydatids was expelled from the uterus of a maiden lady, where the hymen was unruptured, and of whose chastity there could not be a suspicion."^a

The following very suggestive case is recorded by Dr. Graily Hewitt:—"A young unmarried woman died with excessive enlargement of the abdomen, and on examination it proved the peritoneal cavity was beset with true hydatid cysts, which had originated primarily in the liver. These hydatid cysts were found attached to the uterus anteriorly as well as posteriorly, to the ovaries, to the walls of the pelvis—in fact, few portions of the peritoneal surface were without them. Had life been prolonged, the bursting of some of these cysts into the uterus, or into the vagina, was almost inevitable, and then the phenomena would have been presented of a young unmarried woman discharging true hydatids from the generative passages."

Dr. William Ashley, in his valuable essay on this subject,

^a A Practical Treatise on the Diseases Peculiar to Women. By Samuel Ashwell, M.D., p. 528. London: 1844.

speaking of the pathogeny of the uterine hydatid mole, says:—"In a case that came under my care there was strong presumptive evidence that it had established itself on the 'debris' of retained placenta; symptoms of hydatid formation appeared a few weeks after delivery, and under circumstances which precluded the possibility of a subsequent impregnation."^a The same author also cites another case of vesicular mole of the uterus, which appears to have been in no way connected with pregnancy, related by Dr. Knoch, of Heilgenbeil:—"A healthy, strong woman, thirty-two years of age, had been married nine years, and had borne four children without difficulty. At this time she was living apart from her husband, so that according to the declaration of both there could have been no intercourse. The menstrual function ceased after the weaning of the last child, and the patient observed that her abdomen became enlarged, as if she were again pregnant. After three months' suffering, during which she was continually upbraided by her husband in consequence of her condition, pains came on, and hydatids about the size of two fists were extruded. They were collected in a grape-like cluster, and the cysts varied in size from a hemp-seed to that of a walnut."^b

In the *Annales D'Hygiene* for April, 1867, the following case is related by Dr. Fischer:—"A young woman, pluripara, delivered herself in a wood, threw the infant—born alive—and afterbirth, into a stream, and returned to a poorhouse. Two months later she passed a mass of hydatidinous placenta. At the base of the mass was a fleshy membranous substance. Near the point of the ovum was a vesicle the size of a grain of coffee, quite different from the hydatids, attached to the walls of the ovum by a whitish cord. This vesicle was considered to be the umbilical vesicle of an ovum that had disappeared. In this case there had been a twin-pregnancy; one of the embryos had died, and the ovum had been transformed into a hydatid mole, too adherent to the walls of the uterus to be expelled at the time of labour of the living child. If this explanation be not admitted, says Dr. Fischer, it must be concluded that true superfetation, or an impregnation subsequent to the labour, had taken place. As the woman was in custody the latter event was impossible.

A few words as to the old theory, which was supported by Linnæus and other not less eminent writers of that time, namely,

^a Dr. Ashley—"On Vesicular Hydatids of the Uterus." London: 1856, p. 21.

^b Ibid, p. 27.

that these uterine hydatidiform growths are identical with the true hydatids or acephalocysts found in other parts of the body. This conjecture is now abandoned by all modern writers on the subject; still there are some points in which the two diseases present considerable similarity, and, moreover, ordinary hydatids or acephalocysts, apparently possessing independent animal organization and vitality, have been found in the uterus. It must be admitted that the closest resemblance exists between hydatids and the primary nucleated cell formation of all organized structures, and it has been maintained that hydatids are nothing more than nucleated cells "rendered gigantic and monstrous by some erring or morbid action of the vital forces." But which ever of these theories be right, those who support either view have done little more than assert their own opinion, the question being one which the means of investigation at our command do not afford us the power of solving. The chief points of difference between the so-called "true hydatids" and those hydatidiform growths found in the uterus are, that the latter are generally found in aggregated masses, the several vesicles being united to each other by a common central stalk, to which they are attached by narrow pedicles, presenting an appearance somewhat similar to a bunch of white grapes hanging from its stalk; while the former exist as separate vesicular bodies, each of which is supposed to possess independent vitality. Moreover, the true hydatid cyst is commonly of a dense laminated structure, while the uterine hydatidiform growths are not contained within a parent cyst, and their capsule is of a remarkably thin membranous formation.

The particulars of a very interesting case of true hydatids found in the substance of the uterus were published in the *Lancet* several years ago by Mr. Wilton, Surgeon to the Brighton Lying-in Institution:—"The patient was a woman aged thirty-seven, the mother of four children. She was admitted into hospital, suffering from uterine hemorrhage and bearing down pains. She died four days afterwards, and on examination the veins of the fundus were found varicose and congested; a large mass of hydatids was found protruding into the cavity of the uterus, and a large cluster, equal in size to a small tea cup, was firmly adherent to the fundus. The lining membrane in the diseased part was entirely absent, and the masses of hydatids were firmly imbedded in the structure of the uterus, the vessels being dissected into layers by them. Other masses were found between the mucous membrane and the structure

of the uterus, and also in the right ovary, the substance of which was thus disorganized."^a

It would, I think, be unprofitable to pursue this review of the various opinions which have been held at different times on this subject any further. The theory most generally adopted at present is, that hydatidiform moles differ from true hydatids in being the pathological degeneration or abnormal development of some one of the embryonic structures already existing in the uterus, and not independent organisms as the latter are. But, as I have already shown, there are many cases of hydatidiform mole of the uterus to which this theory does not apply. If, then, uterine hydatids sometimes occur under circumstances which prevent the possibility of their being connected with degeneration or abnormal development of any of the embryonic tissues—that is, in cases in which pregnancy has never existed—in what light, under these circumstances, are we to regard the occurrence of hydatidiform growths within the uterus? The answer to this is, I think, that we must look for the solution of this *questio vexata*, in such cases, either to those constitutional changes which lead to the formation of true hydatids in other parts of the body, or else to morbid action set up within the ovary of an unimpregnated female, and which results in the production of hydatidiform disease in a Graafian vesicle, and of its escape from the ovary into the uterine cavity, where it continues to increase in bulk, until it excites uterine irritation and expulsive action. The symptoms occasioned by hydatidiform disease in the uterus are extremely obscure, being chiefly those produced by the presence of the hydatidiform growths acting as foreign bodies, giving rise to irritation of the uterus, and leading to their expulsion therefrom.

The diagnosis of hydatids of the uterus is, indeed, very difficult, and in the early months it would be almost impossible to distinguish with certainty between this condition and ordinary pregnancy. If, however, in a case of supposed pregnancy there be no movement of the fetus after the fourth month, together with an absence of the sounds of the fetal heart, if ballottement cannot be practised after this period, if the morning sickness suddenly cease at an earlier period of gestation than is customary, if there be rigors, followed by a flaccid condition of the mammae, a sense of a peculiar weight in the uterus, and an irregular enlargement and hardness of

^a Mr. Wilton—In *Lancet*, February 1st, 1840, p. 590.

that organ—we may suspect that some pathological change has occurred in the ovum consequent on the death of the fetus. But we cannot pronounce with certainty any opinion on the nature of the pathological change which has taken place until the expulsion of the uterine contents, unless, indeed, as is often the case when hydatids are present, there are occasional discharges of water, or reddish serum, together with hemorrhage from the uterus in a case of supposed pregnancy.

The diagnosis between pregnancy and uterine hydatids may be a matter of great importance, involving the reputation of the patient. Dr. Hamilton in his lectures mentions a case in which a serious mistake of this kind was made by the most eminent physician of his time, the celebrated Dr. Cullen, who, during the absence of Dr. Hamilton's father, was called in to attend one of his patients who was suddenly taken ill, and was pronounced by Dr. Cullen to have miscarried. This opinion was unfortunately the cause of destroying the domestic happiness of the lady and her reputation, as she had been living apart from her husband for two years. On Dr. Hamilton's return he examined the mass expelled from the uterus, and at once declared it to consist of hydatids; but this opinion was then too late to restore the lady's character and the confidence of her family.

The expulsion of the hydatidiform mass from the uterus in the first case which I attended occurred in the fifth month of the supposed pregnancy, and it seems a fact worth observation that most cases of this kind take place about the same period. In the four cases of hydatid delivery mentioned by Drs. Sinclair and Johnston, two of the cases occurred at the fourth month, one at the eighth, and the other at the ninth month of pregnancy.^a Mr. Watson of Warwick, published an admirably illustrated history of a case of this kind in one of the early volumes of the Transactions of the Provincial Medical Association, in which "the uterus before the expulsion of the hydatids occupied a space equal to that of a pregnancy of five or six months."^b In two cases of this disease related by Dr. Ashwell the patients were both supposed to be about four months pregnant.^c The same remark applies to a case narrated by

^a Drs. Sinclair and Johnston's *Practical Midwifery*, p. 483. London, 1858.

^b Mr. Watson—"A Case of Uterine Hydatids," in *Transactions of Provincial Medical and Surgical Association*, Vol. ii., p. 349. London: 1834.

^c Dr. Samuel Ashwell—*Treatise on Diseases of Women*, p. 535. London: 1844.

Dr. J. B. Brown.^a In Drs. M'Clintock and Hardy's case the woman was believed to be four months advanced in her first pregnancy.^b In the two cases seen by Dr. Meadows "the patients were both supposed to have gone between five and six months."^c Of the five cases of cystic disease of the ovum, the details of which are given by Dr. M'Clintock, in two the patients were supposed to be four months pregnant; in one to be three and a half months; in one to be two months; and in one to be six months advanced in pregnancy.^d Dr. Byrne records a case in which the hydatidiform mass was expelled when the woman was believed about four months pregnant.^e In some cases, however, the hydatids are expelled earlier, as in the case published by Dr. Moorhead, of Weymouth, in which a hydatidiform ovum was produced at about the tenth week by a woman, aged fifty, who had not had a child for twenty years before.^f In other cases it may be much later, as in my second case, also in the case related by Sir James Simpson, in both of which the patients reckoned themselves gone beyond the full time of utero gestation;^g and in that given by Mr. Ley, of South Molton, in which the woman was supposed by herself and her medical attendant to have gone her full time of nine months.^h

In cases of hydatidiform moles of the uterus, the danger of alarming hemorrhage at the time of expulsion from the uterus, is a point generally insisted upon by writers, this was illustrated in the second case, the particulars of which I have described. In Clarke's "*Observations on the Diseases of Females*," the danger of uterine hemorrhage in such cases is thus spoken of:—"The os uteri is dilated; the hydatids are expelled by periodical pains; and then for the first time danger presents itself in the form of alarming hemorrhage. This hemorrhage is more frightful than that which follows the removal of the placenta from an uncontracted uterus;

^a Dr. J. B. Brown—In *British Record of Obstetric Medicine and Surgery* for 1848. Vol. i., p. 21.

^b Drs. M'Clintock and Hardy—*Practical Observations on Midwifery*, p. 233. Dublin: 1848.

^c Dr. Meadows—*Manual of Midwifery*, p. 75. London: 1862.

^d Dr. M'Clintock—*Clinical Memoirs on Diseases of Women*, p. 393-340. Dublin: 18—

^e Dr. Byrne—In *Dublin Quarterly Journal of Medical Science*, 1865.

^f Dr. Moorhead—On a Case of Hydatidiform Ovum, in *Lancet*, Feb. 21, 1863, p. 202.

^g Sir James Simpson—"Obstetric Memoirs and Contributions," Vol. ii., p. 450. Edinburgh: 1856.

^h Mr. Ley—In *Medical Times and Gazette*, Dec. 2nd, 1866, p. 662.

and the reason is obvious—the placenta covered only a limited space of the internal surface of the uterus, whereas the hydatids spring from every portion of the cavity.”^a

As to the general constitutional treatment of these cases, I do not think that the obstetrician can do much. The fact, however, that these hydatidiform productions generally occur in persons of an enfeebled and cachectic constitution obviously suggests the necessity for improving the condition of the vital fluid by a generous and nutritious regimen, and by the employment of tonic remedies, and especially chalybeates.

With regard to the special uterine treatment proper to be pursued in cases of hydatidiform moles, a very difficult question arises. Some authors lay it down as a rule that once we are satisfied of the existence of hydatid growths in the uterus by the symptoms which I have described, it becomes the duty of the practitioner to encourage the expulsion of the morbid growth, by cautiously dilating the os uteri and stimulating the uterine contractions. Such practice cannot, however, I think, be approved of, when we consider that hydatids may co-exist with natural pregnancy, and the uterus may contain a healthy fetus, which may be born alive at the ordinary period of gestation, although there have at the same time been hydatid growths in the uterus. Dr. Davis, in a paper read before the Obstetrical Society, has recorded the particulars of a case in which a hydatid mole was expelled from the uterus immediately after a living fetus and its placenta, at about six months' gestation, the hydatid growth being attributed by Dr. Davis to the degenerated ovum of a twin conception.^b Dr. Hildebrandt has also recorded the case of a hydatid mole, together with a normally developed ovum.^c Cases such as these two last, the number of which could very easily be multiplied, are sufficient to demonstrate the impropriety and danger of the rule to which I have above referred. Far better would it be to let nature take its course in every case of hydatidiform mole, for in due course the morbid growth will be surely expelled from the uterus, than by unnecessary interference run the grave risk of destroying a living fetus.

^a Observations on the Diseases of Females. By Charles Mansfield Clarke, M.D. Part II., p. 116.

^b Dr. J. Hall Davis, in Transactions of the Obstetrical Society of London, 1861, Vol. iii.

^c Dr. Hildebrandt—*Monat. für Geb.*, September, 1861, p. 224; and New Sydenham Society Year Book, 1861.