

**ART. III.—Case of Absence of the Uterus in an Adult Female, with Remarks.** By SAMUEL CHEW, M. D., of Baltimore.

I WAS requested, in January last to prescribe for R. H., an unmarried woman of about 22 years of age, who represented herself to be suffering from amenorrhœa. She stated that she had never menstruated, but that for several years past she had every month experienced the symptoms which are in many women the usual precursors of menstruation. She was annoyed at these seasons by headache, nausea, an uneasy tension of the breasts, pain in the back, and a sensation of fulness about the pelvis and lower part of the abdomen. These indications of indisposition, never violent, but yet troublesome by their frequency of recurrence, continued generally for three or four days, and then gradually terminated without any excretion from the vagina, or a vicarious discharge from any other organ. She had never labored under any inflammation or painful affection of the sexual organs. Her general health, strength, and spirits had been uniformly good. Her countenance was marked by a feminine expression, her mammæ were large and their glands fully developed, her hips broad, and her whole appearance that of a well formed, healthy female.

From the regular occurrence of the catamenial effort, I concluded that there was no defect in the structure or functions of the ovaria. That the uterine secretion was not, after being formed, prevented from escaping by an obliteration of the os tincæ, an imperforate hymen, or any other occlusion of the vagina, was evinced by the fact of the abdomen being entirely free from any abnormal distension.

Under these circumstances, it appeared probable that the amenorrhœa depended upon some irregularity of formation, or morbid condition of the uterus. An examination was proposed, to which the patient consented. The external parts were of the natural form and size. The vagina, of the ordinary capacity in other respects, terminated abruptly, and without any previous diminution of its calibre, about an inch and a half above its orifice. The substance by which it was closed seemed to the touch—and to the eye when it was subsequently examined by means of a speculum—to be a continuation of the walls of the organ, and possessed about the same degree of firmness and density. After a deliberate and very careful exploration, I was fully satisfied, that nature had in this case deviated from her usual plan, and produced a female in whom neither a uterus, nor any remnant or trace of that organ was discoverable. Aware of the infrequency of such a deficiency, and desirous to prevent doubts in the minds of others respecting the nature of this case, I sent the patient to the venerable Dr. Chatard, with a request that he would examine her. This gentleman who has so long stood preeminent in Baltimore as the unrivalled corypheus of obstetrical science, was unable by a most accurate investigation to find any vestiges of a

uterus, and was convinced that the organ was wholly wanting. The woman was afterwards examined with great care, and with the same result, by my friend Dr. Cohen, and on another occasion by Dr. J. M. Smith, by neither of whom was the least doubt entertained respecting her condition.

The mode of examination resorted to, was the following: A catheter being passed into the bladder and a finger into the vagina, they were brought as nearly into contact as the coats of the two organs would allow. In this manner it was easily ascertained that nothing was interposed between the lower part of the bladder and the anterior wall and upper extremity of the vagina. A similar investigation was made on the other side of the vagina: a finger of the left hand introduced into this organ, and one of the right into the rectum, were brought together as nearly as possible, along the posterior surface of the vagina, around its closed termination and between its anterior wall and the bladder. Finally, with a catheter in the bladder and a finger in the rectum the whole intervening space, both directly in the median line of the body and as extensively as possible on each side, was thoroughly explored.

The result of these researches was, not only that no uterus could be felt, but that the vagina terminated where it was closed, having no perceptible continuation of any description extending upwards into the pelvis.

No tumour could be discovered in the hypogastrium. In examining this region, the woman was directed to breathe deeply, and the opportunity was seized of pressing the hand upon the abdomen during the ensuing expiration.

The patient, on being questioned, admitted that she was very far from being deficient in sexual appetency. *Cum viro semel (sic narrat) congressa est, et non sine voluptate vivida: amplexus tales, pietate monita, ut plurimum refugit, sed somniis amatoris sæpenumero fruitur.*

The facts which I have stated appear, in the first place, to prove conclusively, that in the subject of this case the ovaria are present and efficient; and secondly, to make it highly probable, if not absolutely certain, that the uterus is wanting.

The presence and activity of the ovaria are sufficiently manifested by the regular occurrence of the catamenial excitement, and by the sensation of sexual appetite.

That the venereal impulse depends upon the ovaria, we learn, both from comparative physiology which shows us that in the lower animals desire is extinguished by the loss of those glands, and also from the accounts of various human females who have had them originally deficient, or been deprived of them by surgical operations. From this latter source, we derive the farther information, that in those who have been born without ovaria neither the catamenial secretion, nor any effort to accomplish that secretion, has ever been observed; and that such as have lost their ovaries after attaining adult age, have uniformly ceased to menstruate, however regular they may previously have been in the performance of the monthly function. By

the subjects of these cases, where the malformation is congenital, many of the peculiar anatomical and physiological characteristics of womanhood are never acquired; and where the dismemberment has happened later in life, they are in a great degree speedily lost. In the *Transactions of the Royal Society*, a case is related by Mr. Pears, of a woman, in whom upon dissection, the ovaria were found to be so indistinct as rather to show the rudiments which ought to have formed them, than any part of their natural structure. This female, who died at the age of twenty-nine years, had never menstruated. Her os tincæ and uterus, with the fallopian tubes which were pervious to their fimbriæ, were found to have the usual form, but had never increased beyond their size in the infant state. Her breadth was fourteen inches across the shoulders, and only nine inches across the pelvis; her breasts and nipples had never enlarged more than in the male subject, there was no hair upon the pubes, nor had there been any indications of puberty either in mind or body; on the contrary, she always expressed aversion to young men who were too familiar with her.\* In the well known case stated by Mr. Pott, the woman whose ovaria he removed, though she continued to enjoy good health, became thinner, and apparently more muscular; her breasts, which had previously been large, entirely subsided, and she never menstruated after the operation. In these instances, and in all others of a similar nature with which I am acquainted, the want of ovaria has been followed by consequences very widely different from any thing observed in the appearance, or reported of the functions of the person whose case I have detailed, and I am, therefore, induced to believe, that she labors under no parallel deficiency of organization.

The question of the presence or absence of the uterus, may, perhaps, be considered somewhat more doubtful and more difficult of solution. To pronounce of the patient, before she has been subjected to such an anatomical examination as can only be made after death, that she is certainly destitute of a uterus, may possibly be deemed not perfectly warranted by the ascertained facts of the case.

To this scruple, it may be replied, in the first place that if there be a uterus, it is unquestionably in a very unusual location, and probably of a size exceedingly minute and rudimental; farther, that if it exist, it must be totally deficient in the natural powers and properties of the healthy organ, as is evident from the absence of the catamenial secretion, notwithstanding the regular recurrence of the monthly constitutional excitement, and lastly, that however extraordinary the malformation may be thought, there are on record some other well attested cases of females, whose symptoms during life were not dissimilar to those of the person who forms the subject of the present account, and who were found after death to be destitute of wombs, though their ovaries were large, well-formed and perfect.

\* *Philosophical Transactions*, Vol. for 1805, p. 235.

These considerations appear to me to render one of two conclusions respecting this case, inevitable; either the patient has no uterus, or, if she has one, it is so undeveloped and imperfect as to produce no influence upon the rest of her organism. The former of these suppositions is in accordance with my own opinion, and with that of the other gentlemen by whom she was examined.

I have thought the preceding case not unworthy of notice, in reference to its bearing upon the physiology of menstruation, and upon the laws of teratology or the doctrine of monstrosities; and also because similar instances of structural imperfection are extremely rare on the records of medical experience, and have generally been related in a very imperfect and unsatisfactory manner.

The important advantages to be derived in the study of physiology from the examination of cases of anomalous organization have, since the beginning of the last century, been fully known and admitted. We learn the functions of an organ, not only by observing the part it performs when present in the system, but also by noting the consequences of its absence. The instance we have been considering renders it evident that the excitement and increased vitality of the sexual organs by which menstruation is preceded are not dependent, as was once supposed, upon any congestion or distension of the vessels of the uterus, or upon any other change in the condition of that organ. It also shows us, that the peculiar external characteristics of the female form, and the possession of sexual sensibility, are not at all owing to the uterus, and are in no way connected with its presence or development. Indeed, there can be no doubt, that the often quoted aphorism of Van Helmont—*propter solum uterum mulier est id quod est*—is perfectly erroneous, and that the distinguishing attributes of womanhood derive their origin not from the womb, but from the far more important energies of the ovaria.

Is it possible for pregnancy to take place in a female, destitute of a uterus but possessing ovaries and a vagina? The affirmative of this question might be consistently maintained by the advocates of what is called the sympathetic theory of generation, who believe that the semen masculinum never passes beyond the vagina, but being brought into contact with some portion of that tube, produces there its specific impression, which is transmitted to the ovarian vesicle by sympathy or consent of parts. The same opinion might, on a different ground, be entertained by those who agree with the late distinguished Professor of Midwifery in the University of Pennsylvania, that there is probably a more direct passage from the vagina to the ovaries than the one through the uterus and fallopian tubes.\* An opposite conclusion

\*It was supposed that this doctrine derived support from Dr. Gartner's discovery, in several of the lower animals, of two small interrupted canals running from the ovaries, along the broad ligaments and the cornua and body of the uterua, to open into the vagina by the sides of the urethra. The same canals had been previously seen by Malpighi, and appear to have been detected in the human subject by Madame Boivin. But the

will be embraced by those who recollect the experiments of Haighton and Blundell, by which it was shown that impregnation is uniformly prevented in rabbits, and probably in all other animals, by any interruption of the communication from the vulva to the ovaria, by means of division or ligature of the vagina, the fallopian tubes, or the neck of the womb.

Modern investigations in the obscure and difficult but most interesting study of embryology have proved, that irregularities in the structure of the body are not occasioned by any original vice or defect in the germ, as was once contended by Winslow, but arise accidentally during the growth of the new being, and in the early periods of its uterine existence. Cases of monstrosity from absence or imperfection of the uterus belong to Blumenbach's class of *monstra per defectum*, or anomalies which spring from arrest or suspension of development. Their occurrence appears to illustrate the truth of the theory of the eccentric or centripetal formation of the body, first advanced by M. Serres, and ably advocated by MM. Geoffroy and Isidore St. Hilaire. According to this view of the subject, which though not universally applicable is yet undoubtedly true to a very great extent, the growth of the organs commences on the surface and progresses thence towards the interior of the system. The azygous or single organs, which occupy a situation directly in the median line of the body, are formed by the expansion of two lateral halves, at first separate and distinct, but which gradually approach each other, and are finally united. If by any cause the development of the rudiments of these halves be prevented, the organ is not formed; if the process of growth be interrupted before the two sides have been brought into contact and union, malformation and imperfection are the consequence. As might be expected from the mode and period of their formation, it has been ascertained by observation, that these organs are much less constant than the lateral and superficial ones, and that they are frequently absent, imperfect, and malformed, when the parts nearer to the surface are present and well developed. The female sexual organs may be divided into three principal segments, the first consisting of the ovaries and their appendages, the second of the uterus, and the third of the clitoris and vulva. These segments are to a certain extent independent of each other, are nourished and supplied by different sets of vessels, and it is not uncommon to see one of them undergoing modifications in form and structure, or even ceasing to exist, without any effect being produced upon the others.\* At the first appearance of the genital organs, which is not until the sixteenth week of gestation, the rudiments of the ovaria consist, according to Meckel, of two

researches of Rathke have shown them to be merely the remnants of two ducts, pervious in the embryo, and leading from the deciduous renal bodies the *Corpora Wolffiana*, which in all the higher vertebratæ precede and form the first rudiments of the urinary and genital glands in the embryos of both sexes.

\* See *Histoire générale et particulière des Anomalies de l'Organisation chez l'Homme et les Animaux*, &c. Par M. Isidore St. Hilaire: Paris, 1832-36.

elongated, narrow bodies, situated high out of the pelvis, and descending obliquely from without inwards, and from above downwards. Proceeding from above these, and extending on their outer side, are two long, attenuate canals, which uniting below compose the uterus and vagina, while their superior portion becomes expanded into fallopian tubes. After the process of growth has commenced in these rudimentary canals, and is advancing from the periphery towards the interior, should any cause arise to interrupt and obstruct the farther progress of development, the uterus, as the organ most deeply seated, will of course suffer most, and the parts of the vagina and tubes which are nearest to it will be more affected than those which are more remote. Thus the ovaries, the ovarian extremities of the tubes, and the lower portion of the vagina may be perfect, while the uterus and its immediate appendages are either extinct, or more or less deformed.

What are the agents capable of so affecting the embryo as to occasion monstrosity? Medical philosophers have never much delighted in acknowledging their ignorance of causes, and this question has consequently received very numerous and various responses. Original malformation of the germ, disease of the embryo, adhesions between it and its membranes, violent accidents happening to the mother during the early months of gestation, sudden and intense emotion of her mind, long continued anxiety, unnatural connections with brutes, cacodemons, and evil genii; are among the causes which have been assigned by different authorities. Of explanations embracing such suppositions, some are evidently absurd, and have been long since exploded and despised; others are conjectural and disputable; and others again can be applied only partially and in particular cases. Mr. Lawrence ascribes the aberrations from the usual form and structure of the body to irregular operations of the powers concerned in generation, and places them, with respect to their cause, on a level with unhealthy executions of the nutritive, secretory, and exhalent functions.\* This view is unquestionably correct, but at the same time it is far too general to be satisfactory to the restless and impatient spirit of curiosity. The ancient notions of monstrosity arising from supernatural agencies are of course to be ranked among the *ineptæ et fabulosæ nugæ* of superstition, and there is no doubt that the causes which impress the embryo with deformity are as natural and physical as those which communicate pleurisy or rheumatism to the adult. But while it is generally easy enough to ascertain the occasions of those and many other diseases, or rather the conditions under which they occur, such is far from being the case with regard to monstrosities; and if the Baconian maxim be correct that "vere scire est per causas scire," I fear we shall have to confess, that respecting the true nature of a large proportion of anomalous formations we are as yet very profoundly ignorant.

Cases in which the uterus is wanting are, as I have already said, not at

\* Medico-Chirurgical Transactions, vol. v. p. 165.

all numerous; but they are not altogether so rare as certain writers have supposed. M. Fournier, in the article "Cas Rares" of the *Dictionnaire des Sciences Médicales*, mentions an instance related by Lieutaud as the only one that appears on the records of medicine. "Les annales de la science médicale ne nous offrent qu'un seul exemple d'une femme privée de matrice. Le cas de cette singulière observation est rapporté par Lieutaud. Il n'y avait chez le sujet nul vestige, aucun annexe de la matrice: le vagin était le seul qui existât; il se terminait supérieurement en cul-de-sac: cette disposition faisait que la femme ne pouvait remplir le devoir du mariage sans éprouver une douleur qui rendait le commerce de son mari insupportable."

Of this case, which as stated by Fournier is both in an anatomical and physiological point of view very incomplete and defective, it was not strictly correct to assert even in 1826 that it was the only one of its kind recorded, two at least having been noticed previously; and subsequently to that date several others have been reported.

Morgagni informs us, that Columbus, the distinguished anatomist of Cremona, dissected the body of a woman who was born without a uterus, and that a similar case had occurred to Fromondus, a celebrated fellow citizen of Columbus.\* From two such instances having been met with in the same city, Morgagni infers that a proper examination would probably show that many other women present examples of the same deficiency, and that among those who have no menstrual effusion, absence of the uterus is much more frequent than has generally been suspected.

This illustrious author appears, however, to have been somewhat too ready to admit the existence of such an accident of structure. He recounts two cases that fell under his own observation, in which he was satisfied of its presence not by an examination per rectum, but simply by the fact that neither of the women had ever menstruated, and that the vagina in one of them had no external orifice, and in the other terminated after extending only a third part of its usual length.† His conclusion may have been correct enough, but his reasons for adopting it are certainly far from being valid.

A case in which the uterus was absent is related by Professor Cailliot, in the second volume of the *Memoirs of the Medical Society of Paris*. The patient had never menstruated, and yet enjoyed excellent health. She was deficient in none of the other characteristics of her sex, except that her breasts were small. A canal, between two and three lines in diameter, and about an inch in depth, occupied the place of the vagina, and terminated in a cul-de-sac. The most accurate examinations discovered nothing like a uterus. At the age of twenty-six or twenty-seven, this woman became subject to a pretty frequent evacuation of bloody urine, which recurred at irregular periods, and was perhaps intended to supply the place of the catamenia.

\* De Sedibus et Causis Morborum, Epist. 46, Art. 13.

† Epist. 46. Art. 11, 12.

The following instance occurred under the observation of Dupuytren, and is reported by Breschet. Ag. Melassene, aged twenty-seven years, requested on the 24th of February, 1823, to be admitted into the Hotel Dieu, for a fistula in ano. She stated that she had never menstruated; that at certain periods she felt a heaviness in the head, flushings and heat of the face, and pains in the abdomen; all of which symptoms were uniformly removed by the application of leeches to the anus. The external genital parts appeared well formed; the pelvis was perhaps rather narrow, but the breasts were fully developed, and all the appearances announced the most perfect feminine conformation. The finger introduced into the vagina, was arrested, at about the depth of an inch, by a smooth round cul-de-sac, above which nothing could be felt indicative of the presence of a uterus. The patient was asked if she had ever felt any of the pleasures of love; she answered in the negative, but said that she had lived four years in a state of concubinage, and was then on the point of marrying. She was operated on for the fistula on the 28th of February, and died on the 15th of March, of acute inflammation of the liver. Upon examination after death, the vagina, about an inch in length, was found to terminate abruptly; behind it lay the rectum, above and behind the bladder were found the broad ligaments of the uterus, which contained within their substance fallopian tubes and ovaries well developed. There was no uterus to be found, but at the point of union of the fallopian tubes was discovered a small body, which neither presented a cavity, nor had in other respects the least resemblance to a womb.\*

Dr. Macfarlane of Glasgow, relates the case of a woman who applied to him to be operated on for a defect of her vagina. She was twenty-eight years of age, her external organs were well formed and entire, her mammae large, and she was not deficient in sexual feeling. The orifice of the vagina was completely closed by a thick, firm muscular looking substance, continuous with the inner margin of the labia, and adhering to the pubes below and around the urethra, so as to leave not the least trace of an opening. The patient had been subject to severe attacks of epistaxis, since she was sixteen years old, to vertigo, flatulence, palpitations, pains in the lumbar region, vomiting and occasional diarrhoea. An operation was performed by Dr. Macfarlane, in February, 1823, with a view of opening a passage to the womb. The patient died of peritonitis. Upon examination of her body, the ovaria were found large and well shaped, and the fallopian tubes were each an inch and a quarter in length, their fimbriated extremities being perfect. There was no vestige of a uterus. In the normal situation of that organ, was a portion of condensed cellular substance, about the size of a filbert, more than an inch distant from the uterine extremities of the tubes, and loosely attached to the peritoneum.†

\* *Repert. d'Anatomie Pathologique*, tome v, p. 99.

† *Macfarlane's Clinical Reports of the Surgical Practice of the Royal Infirmary, Glasgow*, 1832.



Mr. Kingdon, in 1826, stated to the London Medical Society a case of absence of the uterus which had occurred in his practice. He had availed himself of the assistance of Mr. Lawrence, and although, they had both made a most careful examination of the parts, with the aid of Weiss' speculum vaginæ, and had most cautiously investigated the case, no uterus could be detected. The vagina was about three inches in length. The upper part appeared to lie in contact with the rectum, and beyond it nothing could be felt. This patient had the usual female figure; but the breasts, although of a moderate size, appeared to be so rather from a state of general *embonpoint*, than from a development of their glandular structure.\*

The anatomy of this case, if no means of exploration were resorted to save those which are mentioned, must be considered very dubious: respecting its physiology not a word is said.

M. Renaudin presented to the Academy of Medicine the genital organs of a woman, in whom the uterus was wanting. This person died at the age of fifty-two years; she was of very small size, had never menstruated, her breasts had never been developed, and her intellect was imperfect. The parts of generation externally were well formed, but a finger introduced into the vagina encountered, instead of the neck of the uterus, a small tubercle possessed of but little sensibility. Between the bladder and rectum, instead of a uterus, was a firm cord, about the size of a quill, communicating with the vagina, and also with the fallopian tubes. Some traces of ovaria were faintly perceptible. On slitting open the vagina and the cord-like canal above it, the first was found to be properly formed, and the last, which was only an inch in length, was evidently an imperfect neck of the uterus. The body and fundus of that organ were entirely deficient. †

A case of absence or imperfect development of the uterus, was observed during the past year, in the Hôpital de la Charité. Jeanne Française, forty-six years of age, was admitted into that institution in January, 1839, under the care of M. Rayer. She had never suffered from any severe or dangerous illness, but had been for many years subject to distressing headaches, and frequent anomalous pains in the stomach, and throat. When fifteen years of age, she had experienced the symptoms which usually announce the approach of the menstrual secretion; but neither then nor at any subsequent period of her life, was there any appearance of uterine discharge. She had had occasionally a sanguineous flux from the bowels, and once or twice had been affected with vomiting of blood. During the last twelve months, she had suffered much from hysterical dyspnœa, colic and diarrhœa, the stools being several times deeply tinged with blood. The mammæ were well developed, with the nipples projecting and surrounded by areolæ. There was no hair in the axillæ or on the pubes. The external organs of generation, and the vagina were perfectly natural; but on examining this canal with the

\* Lancet, vol. xi, p. 85.

† Archives Générales, tome x, p. 474.

finger, no traces of cervix or os uteri could be discovered; it seemed to terminate in a cul-de-sac. At the extremity of the passage, a firm roundish substance, of the size of a small walnut, could be felt through the lining mucous membrane: it was perceptible also by examination from the rectum. This was probably a rudimentary uterus. M. Rayer and Velpeau fully satisfied themselves of the accuracy of these statements. The woman was never married, but she had been cohabiting with a man, and appeared to have the ordinary sexual feelings.\*

The foregoing are the most remarkable and interesting cases of this kind that have been published. Others are recorded by Engel, Bousquet, Theden, Klintosch, Boyer, Meyer and Walther; several are referred to in Voigtet's Manual of Pathological Anatomy; and there are some, perhaps, reported by other writers which I have not seen, or cannot now recollect.† The instances which I have detailed are sufficiently numerous, and afford an ample demonstration of the effects upon the female economy of this unusual departure from the common arrangement of the system.

Since the preceding pages were written, I have learned from a friend, that an instance of malformation, extremely similar to the one recounted in the beginning of this paper, has very recently fallen under the observation of an eminent physician of Philadelphia. Whether this gentleman, who has obliged and benefited the medical public, by his valuable writings on more important subjects, designs to favor the profession with an account of this case, and with his opinions respecting it, I have not been informed.