

## CLINICAL CASES.

---

- I. *Cases illustrating the Action of Amenorrhœa as a Cause of Insanity.* By S. W. DUCKWORTH WILLIAMS, M.D., L.R.C.P.  
Lond., House Surgeon to the Northampton General Lunatic Hospital.

*General observations on the influence of defective menstruation on mental disease; statistical results; influence of the uterus on morbid mental manifestations; the history of six cases illustrating the action of amenorrhœa as a cause of insanity; remarks on the pathological condition involved in this sympathy between the cerebral and uterine functions.*

IN none of the systemic works on psychological medicine is there any but a very meager account of this apparently fertile physical cause of mental alienation; I hope I am, therefore, justified in directing attention to it, for in few cases can insanity be more clearly traced to a physical defect than in those where the uterine functions are abnormally suspended, and in few classes of cases, *cæteris paribus*, is the plan of a rational treatment more clearly indicated than in these.

That defective menstruation is a prolific source of insanity in women, may be inferred from the fact that M. Esquirol mentions 27 cases at the Salpêtrière, out of 132 of mania of both sexes, in which their malady could be traced to a physical lesion where this was the case; and out of 51 maniacal women, at his own private establishment, the alienation of 11 was thus assigned. In melancholia the number was not quite so high, being 26 in 165.

With reference to disordered menstruation as a cause of insanity, he says:—"Among women of all classes menstruation, either because it has been with difficulty established, or has been suppressed, or in consequence of its final suppression, is one of the most common causes of mania. It may with truth be said that this cause extends

may be made: 'De la Folie, cons. dans ses Rapports avec les Quest. Méd. Jud.,' par C. C. H. Marc; Esquirol's 'Mémoire sur la Monomanie Homicide;' Cazauvielh, 'De la Monomanie Homicide;' Dr. Ludwig Meyer, on "Mania Transitoria," in Virchow's 'Archives,' vol. viii, p. 192; 'Médecine Légale relative aux Aliénés,' par J. C. Hoffbauer, translated by Chambeyron; Briere de Boismont, in the 'Annales Méd. Psych.,' vol. viii; various articles in the 'Annales d'Hygiène Publique,' the 'American Journal of Insanity,' and various English works, especially Dr. Prichard, 'On Insanity in relation to Jurisprudence.' But as the article only offers a brief summary of observations the references are not complete.

itself over the whole period during which females are in the most favorable condition for the development of mania."

So manifest a connection between cause and effect in insanity would not be likely to escape the unerring sagacity of so distinguished a psychologist as the late Dr. Pritchard, and in a brief notice of this subject in his 'Treatise on Insanity,' we find him writing—"Sudden suppressions of the catamenia are frequently followed by diseases of the nervous system of various kinds. Females exposed to cold, undergoing powerful excitements, experience a suppression of the catamenia, followed, in some instances immediately, by fits of epilepsy or hysteria, the attacks of which are so sudden as to illustrate the connection of cause and effect. In attacks of madness the catamenia are for the most part wholly or partially suppressed during the early periods, and in many cases it is not easy to say whether the suppression is the effect or the cause of the disease. There are instances, however, in which the circumstances sufficiently indicate the order of connection."

Dr. Hood, in his 'Statistics of Insanity,' pages 55 and 56, sets down 149 out of 697 women admitted into Bethlehem Hospital in whom the apparent or assigned cause of mental aberration was uterine disturbance; and further on, page 71, he writes:—"Amenorrhœa is very frequently one of the causes of insanity, particularly of dementia; certainly menstruation is often suppressed in insanity, and its reappearance is as frequently contemporaneous with recovery."

Dr. Tuke, it is true, considers\* "that the relation of the uterine disorders to insanity is frequently very difficult to determine;" but he qualifies this assertion by confessing that, "although, however, often only an early symptom of the disease, when set down as a cause, there remain a large number of cases in which suppressed or irregular menstruation is the true cause of the attack;" and further on he says—"The proportion of admissions from uterine disorders appears to be about 5, or, taking female admissions only, 10 per cent.

These statistics and extracts would, therefore, seem to prove that the disorders of menstruation have been for years, and are also now recognised, *inter alia*, as probable physical causes of insanity, whilst the little attention given to them, and the brief notices that have seemed to suffice, would appear to prove a corresponding doubt as to their importance, which is, however, negatived and falsified by the statistics themselves, they going to prove the converse, and with the accustomed obstinacy of facts allowing of no denial.

When we come to consider what a marked influence the uterine functions exercise over the whole of woman's economy—how powerful they are for weal or woe, how readily the intellect, emotions, and passions sympathise with them, and what a prolific source of disease

\* 'Manual of Psychological Medicine.'

they are—it would, indeed, be strange if insanity did not occupy the foremost rank amongst maladies incidental to their suppression.

It is necessarily very difficult to be sure how far the physical defect may be the origin of the mental aberration—how far, or whether at all, the material effect is occasioned by the hypothetic cause; but where we get insanity following close on a cessation of the menses, and departing when the uterus resumes its healthy action, and no moral, hereditary, or other physical cause apparent, we are certainly justified, *quæ cum ita sint*, in putting down the mental alienation to the uterine disturbance.

Apropos of this, M. Pinel relates the case of “a girl who, from the age of ten years, was in a state of incoherence, with suppression of the catamenia. One day, on rising from bed, she ran and embraced her mother, exclaiming, ‘Mamma, I am well.’ The catamenia had just flowed spontaneously, and her reason was immediately restored.”

That the mind is often sympathetic of the uterus cannot be doubted, and every case-book teems with cases illustrative of this fact. That it is especially so at the menstrual period is also undoubtedly true; in fact, cases are recorded in which women were invariably insane during the flow of the catamenia, and many exhibit peculiarities which are not present at other times, are more subject to fits of hysteria, more easily affected by sudden shocks to the mind, and certainly less capable of bearing up against the depression and annoyance of physical ailments; indeed, in some women, *pro tempore*, the system seems to be completely unhinged, and very different from the normal standard of health. Every professional visitor to a lunatic asylum must have noticed how liable the female inmates are to periodic exacerbations of their malady, even where menstruation is healthy, and the insanity can be traced to other causes than those of uterine disorder. Dr. Bucknill, in the appendix to ‘The Manual of Psychological Medicine,’ gives an account of a very distressing case of this description.

If the uterus can so largely affect the economy when in the healthy performance of its function, it may justly be inferred that when those functions are suspended, or abnormally performed, the corresponding shock to the mind will be in proportion; and the inference goes far to disprove the assertions of psychologists of the metaphysical school, who “maintain that madness is a disease of the mind, in the strict sense of that expression.”

It may be said, “granted this to be true, to prove the case, every girl or woman suffering from amenorrhœa should, *pari passu*, become insane;” but no, if such a proposition were to obtain, we should have to treat as nonsense all the other causes, hereditary included, of insanity; *e. g.* we have a family of six: the father died in a lunatic asylum a confirmed lunatic, so did the uncle and grandfather. One

or two, or even three of the six, without any apparent moral or physical cause, became insane, having, it is believed, inherited the disease. But why, as three succumbed to the hereditary curse, did not the other three? We cannot say; neither can we say why amenorrhœa is not always followed by insanity. A enters a room infected by smallpox with impunity; B, coming in immediately after, catches the disease—we know not why. At the best we reason—B has a stronger predisposition for the disease than A. So we may say a woman suffering from mania preceded by amenorrhœa has a stronger predisposition for, is mentally more susceptible of, insanity, than one who has only amenorrhœa without the sequence of the other.

The beneficial effect of emmenagogue medicines combined with iron, in these cases, is quite marked, and clearly points to the suppression of the menses as the true cause of the insanity. The pill of aloes and myrrh, combined with a steel mixture, is very convenient, and appears to be most efficacious, especially if given at the same time with a course of hot hip-baths, rendered more stimulant by a handful of mustard. These means failing, recourse may be had to the electro-galvanic current, or, *en dernier resort*, to leeches to the vulva. It is seldom, however, that the first plan of treatment is unsuccessful, if persevered with, and when successful in removing the physical cause, it generally follows that mental health is also restored; but occasionally the removal of the cause is not followed by a corresponding abatement of the effect. In such cases we may justly infer either that the true cause has been misunderstood, or else that the sympathetic irritation was so violent, or else so long continued, as to lead to organic disease.

We very rarely find that a patient suffering from mental aberration, attendant on amenorrhœa as a probable physical cause, recovers if the improvement does not commence very soon after the first return of the catamenia, even though "habit, the memory of the body," as John Hunter beautifully terms it, allows of, for the future, a proper and regular uterine action. This might be expected, and shows that the sympathetic irritation the brain has been subjected to has laid the foundation of abnormal organic changes. These will be again referred to and examined when dealing with the pathology of the subject under consideration.

I shall now proceed to relate a few cases that have come under my own observation, and which seem to me to prove the hypothesis started. I use the word "seem" advisedly, remembering the old French proverb, "Grande déraison de prétendre toujours avoir raison;" comforting myself, however, with the belief that "Nulla falsa doctrina est, quæ non permisceat aliquid veritatis."

CASE 1.—S. R.—, female, æt. 20 years, was admitted into the Gloucester

County Lunatic Asylum, on the 29th of July, 1861, in a state of mania of one month's duration, attendant on a total suppression of the catamenial discharge, and preceded by several months of religious exaltation. There was nothing peculiar about the case, which was treated in the usual way, with aperients, blisters, salines, with opiates, &c. As, however, she did not improve, but was becoming very pale and anæmic looking, and the catamenia was still in abeyance, the following prescription was ordered :

℞ Decoct. Aloes,  
Mist. Ferri co., āā ʒss; bis die sumend.

At the same time she was to have a warm hip-bath, in which a handful of mustard had been thrown, every morning; this plan of treatment was persisted in for sixteen days, and then the aloes producing hypercatharsis, the medicine was omitted; but in two days afterwards healthy menstruation returned; from that time she began slowly but surely to mend, and was ultimately discharged recovered, menstruation being performed regularly up to the time of her leaving the asylum.

CASE 2.—M. E. L.—, æt. 18 years, was admitted into the Northampton General Lunatic Hospital, on July 7th, 1862, with the following history. Had always been a strong, healthy child. Menstruation commenced regularly at fifteen, but after a time became irregular, and had lately entirely ceased; since the commencement of this irregularity her general health had not been so robust, but it is within the last eight weeks that her mind has become affected. When admitted, she had the appearance of one suffering from leucocythemia, so characteristic was the pallor of her skin and the general anæmia. There was also a tendency to dropsical effusions of the extremities. Functional derangement of the stomach and intestines was evident, and the circulation was sluggish and feeble; but no organic disease could be detected in any of the thoracic organs or the abdominal viscera. Mentally, she was in a most distressing state of delusional lypemania, with suicidal impulse. Labouring under the impression that she was the victim of the most relentless cruelty on the part of her step-mother, she gave herself up to the blackest despair, from which it would be a relief to escape, even though that escape were effected at the expense of her mortal life. It was not safe to leave her for a moment, and the greatest care was necessary on the part of her attendants, as she was most futile in her attempts at self-immolation. So she continued for some six weeks, during which she was treated in the ordinary way, when a slight amelioration in her condition took place, but no sign of a real advance toward recovery. About three months after admission, a new course of treatment was ordered, and the following medicine prescribed :

℞ Tinct. Ferri Sesquichlor., ʒij;  
Tinct. Calumb., ʒiv;  
Aquæ, ad ʒviiij. M., ft. mist.; sumat ʒj bis die.  
Pil. Aloes c. Myrrha, j, nocte maneque.

This plan was persistently carried out for some time, ultimately to be followed by the same results as in the previous case, viz., a healthy catamenial flow, and a re-establishment of mental health.

CASE 3.—Mrs. R—, æt. 37 years, admitted into the Northampton General Lunatic Asylum, on November, 22nd, 1862, was the subject of a delusional monomania, secondary to an emotional aberration of about six weeks' duration. Her delusion, or more correctly speaking, hallucination, consisted in a belief that the devil was constantly on her back by day, and laying by her side at

night, to prevent her from sleeping. This insane idea was constantly present to her mind, engrossing all her thoughts, and supplying the never-failing source of her conversation, which was consequently of the gloomiest and most desponding nature. She appeared, however, to be in the enjoyment of the most robust health, and if her attention could be diverted from the hallucination mentioned above, she would converse rationally, and with, for a person in her humble station of life, marked intelligence. Her last child was weaned when six months old, about which time the menses ceased to flow regularly, and soon afterwards her husband noted that she became low and depressed in spirits, but without any defect in her intellect. After, however, about six weeks passed in this condition, the delusion about the devil began to creep out, and has tenaciously clung to her understanding ever since; for the last two months there has been a total cessation of the catamenial discharge, not attended, however, by any marked constitutional derangement. After admission, the following draught was prescribed:

℞ Liquor. Morph. Acet.,  
Tinct. Hyoscy., āā ʒss;  
Aquæ, ad. ʒj. M. ft. hst.; omni nocte sumend.

And it was ordered that she should attend all the bi-weekly lectures, balls, and entertainments, and, weather permitting, take a walk daily. After a time she began to sleep well, and the anodyne draught was gradually decreased in strength, and ultimately omitted. Still no signs of mental or physical improvement; and just a month after admission, it was ordered that she should take as follows:

℞ Tinct. Ferri S.-chlor., ʒij;  
Inf. Quassie, ad. ʒviiij. M., ft. mist., ʒj bis die.  
Pil. Aloes c. Myrrha, j; nocte manequ.

The function of menstruation returned; she lost her delusion, and two months afterwards returned home, *mens sana et in corpore sano*.

CASE 4.—Mrs. B—, æt. 37 years, admitted into the Northampton General Lunatic Asylum, on April 3rd, 1862, had for two years previously been confined in a private asylum in the West of England, owing to an attack of acute mania, which subsequently became chronic in its nature, and was attendant on a derangement of the menstrual function of the uterus. As she was noisy for the first night or two after admission, an opiate was prescribed. After having been in the asylum for about a month, it was noticed that she always became excited from about three to six in the afternoon; during the rest of the day she was quiet enough, would converse rationally, and being a person of education and of a naturally charming manner, make herself very agreeable, and occupied her lucid intervals in reading and drawing, and with music, &c.; but as surely as the evening came round, her eccentricities would display themselves, she would become flighty and silly, dance round the room, chattering incessantly and laughing immoderately, and seldom remaining quiet for a single moment: this would gradually wear off, and on the next morning she would be as quiet and as lady-like as ever. Two-grain doses of Quinine were prescribed, bis quotidie, with air, exercise, and recreation. During the second month the catamenia returned; the exacerbations of recurrent excitement gradually became less intense, and ultimately ceased, and her cure was finally effected by a trip to the sea-side in North Wales, with nearly forty others of the inmates of the Northampton General Lunatic Asylum.

CASE 5.—S. F. W—, æt. 18 years, single, dressmaker, first menstruated between fifteen and sixteen. About two years ago she was frightened by a mad dog, and menstruation ceased. Soon afterwards, hearing that a young

girl in the neighbourhood was *enccinte*, she forthwith, without any ground for the delusion, fancied herself in the same condition. This delusion soon left her; but two months after, hearing of a suicide by hanging, she became subject to the painful illusion that the deed was being constantly performed before her eyes. Her uterine functions, however, becoming healthy again, this soon passed away, and she remained well for two years. About two months ago, the catamenia again ceased, and she began to suffer from intense headaches, with sickness, and was sent to the sea-side for change, but returned the worse for her trip, and with her mind again manifestly deluded, believing, amongst other insane ideas, that a black man had turned her into a snake, and wanted to sell her; fancied that people were serenading the house, &c., &c.

She quickly became worse, and ultimately passed into a state of apparently drivelling dementia; dirty in her habits and depraved in her appetite, she would lay all day crouched in a corner, moaning and crying without ceasing, answering no questions, refusing all food, and taking no notice of anything, in fact, all her faculties, moral and intellectual, appeared to be swiftly departing and her existence becoming merely organic. This condition continued for some months, during which she was blistered, and aperients, anodynes, and salines prescribed, usque ad nauseam. Ultimately, equal parts of Decoction of Aloes and Mist. Ferri co., were given, ℥j twice a day, with, as the liver appeared rather sluggish, an occasional dose of Dover's and grey powder. This was followed by an irregular and scanty return of the catamenia, but producing a relaxed state of the bowels, with but slight mental amelioration, was after a time omitted. Still no improvement, and her general health slowly becoming very bad; she was reduced to a skeleton, and could scarcely stand. Ordered port wine and cod-liver oil, with a nourishing diet; her general health became better, her mental state slightly improved. Ordered Pil. Al. c. Myrrh., j, nocte manequa, with daily hot hip-baths. A still further improvement; healthy menstruation; recovery.

Here are five cases, all alike in their chief characteristics: in each, the first symptoms of mental disorder were preceded by irregularity of the menstrual function. In each, the uterine disturbance was the only cause, either of a moral or physical nature present. In each, medicines referring more especially to the head symptoms were first prescribed and failed, and in each, emmenagogues combined with tonics were, *en dernier resort*, given, and ended in a return of the catamenia and ultimate re-establishment of the mental faculties in their pristine vigour. The next and last case corresponds exactly with the others in every respect but the one important exception, that the removal of the physical cause was not followed by loss of the mental effect.

CASE 6.—Miss E—, æt. 19 years, was the younger of two sisters, daughters of respectable and wealthy parents. Her history, as it appears in the case-book, is as follows: Has been well brought up and received a fair education; always enjoyed good health. Catamenia began to flow at sixteen years of age, and continued to do so periodically and regularly up to eleven months ago, when it ceased without any apparent or assigned cause, and has not since re-appeared. Her mind is stated to have first become affected four months ago, and she soon became as she is at present. Her friends wanted to remove her to an asylum at once, but were persuaded to try what a change to the sea-side might do; however, after a fair trial, as no improvement became visible, she was ultimately removed to the asylum. On admission, she looked pale, thin, and anæmic, and her pulse was feeble and unfrequent; but the organs of the thorax and the abdominal viscera, as far as could be ascertained, were in a healthy state. Mentally, her condition was very unfavorable; she appeared to have no power to guide her reasoning faculties to anything like correct conclusions, and her intellectual powers were strangely perverted, so that to

every question addressed to her she answered by some senseless rigmarole or other, quite foreign to the sense of the query. The moral sense seemed also blunted, and she was at times rather familiarly amorous, and would, if not watched, remove her clothes; with all this, there was a manner flippant and childish in the extreme, and a general appearance of lurking imbecility in every movement; she would take no food unless fed, and it was necessary to dress and undress her; that is six months ago, and she is still in the same mental condition—not one jot better. Physically, she appears to be in excellent health, as, after persevering in an emmenagogue treatment for three months, she became regular in her uterine function and has since continued so.

Now, can a rational, although necessarily hypothetical pathology, be framed to account for this evident sympathy between the cerebral and uterine function? I think there can.

Dr. Bucknill writes: "The one physiological principle upon which we have to build a system of cerebral pathology is, that mental health is dependent upon the due nutrition, stimulation, and repose of the brain; that is, upon the condition of the exhaustion and reparation of its nerve-substance being maintained in a healthy and regular state, and that mental disease results from the interruption or disturbance of these conditions."

To particularise. The vital fluid, holding in solution certain matter requisite for the nutrition of the cerebral substance, is conveyed by the arterial system to the capillaries of the brain, and through them is brought into intimate contact with the vesicular neurine, to which it yields up part of the nutritive material. The growth, organic life, and decay of the component parts of this vesicular neurine represents, however, the origin of all our thoughts and voluntary actions, and the working of our intellect; collects, arranges, and assimilates all our feelings, sensations, and impressions for their ultimate conveyance by the tubular neurine, and in fine, represents the working of the mind under the influence of its hidden stimulant. Therefore no thoughts, however fleeting, can occur to us, no action be consummated, without a like havoc and destruction of cells composing the vesicular neurine. For this purpose it is necessary that nutritive material should be always at hand, ready to supply matter for the formation of new cells destined to take the place of those just destroyed. The healthy brain must therefore be in a state of constant transition and change, always losing substance, and always having it renovated as fast as lost; always ready to be destroyed at the promptings of its unknown and imperious stimulator, and always prepared with material at hand for restoration.

Granted the foregoing to be true, it necessarily follows that any increase or diminution of the blood, or of the substance peculiar to the nutrition of the vesicular neurine, or any substitution of foreign and heterogeneous matter for this material, must disarrange the nicely poised balance, causing either (1) hyperæmia, by which the



nutritive material would collect faster than it could be assimilated; or else (2) atrophy, by which the number or efficiency of the cells would be diminished from want of food requisite to their growth. In either case, the functions of the vesicular neurine must become deranged and give rise either (1) to exaltation,—maniacal, emotional, or intellectual, as the case may be,—owing to an undue stimulation caused by the irritation and excessive nutrition of an abnormal quantity of blood; or else (2) to dementia and imbecility, owing to a want of material sufficient for the formation and supply of a quantity of cells necessary for the developing of the mental stimulus.

In amenorrhœa, hæmorrhage vicarious of nutrition is of constant occurrence, and there is scarcely an external or internal part or organ from which instances have not been given of this vicarious hæmorrhage, congestion of the part selected being a necessary concomitant.

In cases of insanity complicated, like the ones noted above, with amenorrhœa, may not the hyperæmia of the brain be a congestion vicarious of the menstrual flux? It may seem ridiculous to talk of vicarious congestion of the brain, but why should it seem so? why should the brain not be occasionally selected as well as the eye, stomach, or air-passages, for this freak of nature? I know of no recorded case of insanity, with amenorrhœa as its apparent cause, in which there has been a vicarious hæmorrhage. What do the lately accorded cases show us? We find a female, previously in good physical and mental health, suffering from amenorrhœa; almost immediately after the first monthly irregularity symptoms of a disordered mind begin to show themselves,—the congestion that should have occurred to the uterus, having chosen the vesicular neurine for its seat? Presently emmenagogue medicines are prescribed. The blood is by these means drawn to the uterus, and the catamenia re-established, whilst the brain, being sympathetic of the uterus, is relieved of the undue quantity of formative matter, and returns to the healthy performance of its functions. If, then, it be allowed that the brain of females does occasionally take a turn with other organs in aiding nature to purge herself of *débris*, we have cerebral hyperæmia, a well-recognised pathological cause of insanity, so to speak, ready made.

Some writers of eminence upon the causation of insanity maintain, however, that simple passive congestion is not sufficient to produce a diseased action of the brain, unless the blood be vitiated; and Virchow writes: "It is necessary that particular conditions should obtain in the tissues (irritation), altering the nature of their attraction for the blood, or that particular matter should be present in the blood (specific substances) upon which definite parts of the tissue are able to exert a particular attraction." So in these cases under consideration, we have not only a hyperæmic condition of the

vascular system of the cerebral substance, but likewise a highly carbonized and vitiated state of the blood, caused by the stagnation of one of nature's chief processes for its (the blood's) purification; for, according to Dr. West, "all nations regarded the menstrual functions as a great depurative agent, a means supplemental to the lungs themselves for eliminating carbon from the system." And again, "Of all the various processes of development which at times go on in the system, none seem to make such great demands on the circulating fluid as those which concern the respiratory organs."

If, then, congestion of the brain, with an abnormal congesting fluid, be a pathological condition of insanity, and we get this state of things in amenorrhœa, owing to a vicarious congestion, we must necessarily have the concomitant—madness. Some able pathologists, however, go so far as to deny the existence of simple congestion as a cause of mental derangement, and affirm that at the best it is but a consequence of the disordered mind, a collateral phenomenon, brought about by the irritability of the nerve-cells, and in no ways accountable for its (the mind's) departure from a healthy standard. Granting this to be true, we must do away with the theory of vicarious congestion, and fall back upon the irritation of the blood, and its paucity of material requisite for the nutrition of the nerve-cells, as the probably true cause of the eccentricities in the cerebral functions; and this condition we have already seen does exist in amenorrhœa. But I think that the weight of evidence of writers is overwhelmingly in favour of congestion as the precursor, and not the after effect of insanity.

## II. *A short Note on some cases of Pellagra (Erythème Pellagreu).*

By JAMES DE WOLFF, M.D. Edin., Medical Superintendent of the Hospital for the Insane, Halifax, Nova Scotia.

Communicated by Dr. W. A. F. BROWNE, Commissioner in Lunacy for Scotland.

EARLY in the winter of 1862 one of the writer's patients, an elderly man, had a very considerable swelling of the fingers, first of one, then of both hands, slightly itching, but not hot nor painful; soft and yielding, but not pitting on pressure; glistening, and of a marked and deep-blue colour, which was made paler, but not removed, as often as pressed upon.

Shortly after this one of the female attendants (who alone of all the household had at the same time chilblains on her feet) had not only this blue swelling of the fingers, but slight bullæ on several, followed by small abrasions of the cuticle.

By degrees first one and then another of the patients, to the number of fifteen, had the same swelling, with slight differences in