M.D.

Graduation Thesis

on

Membranous Dysmenorrhoea

by

Richard Percy Cox.

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Membranous Dysmenorrhcea

My selection of Membranous Dysmenorrhcea as the subject of my Thesis is due to the fact that a lady suffering from this interesting, but somewhat obscure malady, has recently come under my care, and as I have been thus induced to devote much time and attention to the subject, I trust my choice will not be considered unsuitable. I intend to give in the first place a brief description of this particular case, mentioning its progress while under observation, and the treatment adopted, next, I shall endeavour to submit a careful resume of such writings on the subject as I have had the opportunity of consulting, and I shall conclude with a few remarks criticising the latter, or suggested by a comparison of my own, with other cases therein recorded.
Mrs M., aged 26, a lady in a good position, and with comfortable surroundings, requested my help in the early part of June last year, complaining of delayed menstruation, nervous prostration, headache, and general malaise, with pain in the left ovarian region and under the free margin of the ribs on the same side. I elicited the following account of her previous health:

She had enjoyed fairly good health until five years ago (having previously suffered from no illness requiring special notice) when she experienced a complete nervous breakdown which her mother attributed to disappointment and anxiety attending a broken-off engagement. She suffered from much prostration, and a good deal of hyposthenia, indicated by hyperesthesia, formication, and such disorders of sensation as a constant feeling of sand under the skin at her finger-tips, hairs on the tongue &c.; she was also troubled with obstinate constipation.

From this time similar symptoms frequently recurred during the next two years, generally but not hab-
itually associated with the menstrual shocks, and about three years ago she had a very severe attack, losing for some weeks the use of her limbs and voice completely, suffering also from extremely obstinate constipation. (Fecal accumulations of long standing were dislodged with much difficulty.) Her condition much improved, after a course of treatment on the Weir-Mitchell system, the bowels became regular, the hysteria subsided, and she remained in better health until the present time. The various members of her family are all healthy but of nervous temperament.

The following is a careful description of her **Menstrual History**.

She commenced to menstruate at the age of fifteen, the periods occurred regularly once a month and lasted a few days. She frequently suffered a little pain at the commencement of an epoch (chiefly in the back) but it did not amount to much. She was not conscious of passing anything resembling a uterine cast or shreds of membrane, previous to her nervous breakdown, five
years since, but shortly after this she observed a "mould" which was passed on the second day of the menstrual period, similar in character to the one (described below) expelled during her first epoch while under my care, and accompanied by very similar pain, which was relieved when the expulsion was completed. From that time membranes (more or less perfect) have occurred at irregular intervals, generally appearing on the second day, but latterly being frequently retained until the third or fourth day. The expulsion has been generally associated with much pain (chiefly in the left ovarian region) this however has at times been absent.

She states that frequently for several months together, a perfect cast of the uterus has been discharged at each period.

For the last five years menstruation has been irregular, being often several days late at other times appearing every fortnight, frequently also she has noticed a temporary cessation of the discharge for several hours.
She has never been troubled to any extent from intermenstrual discharge.

I noted the following particulars of her condition when first coming under my observation.

She is a brunette with a sallow somewhat dirty complexion, and decidedly the manner and appearance of an hypo-
tensive subject, the drooping eyelids and full upper lip being conspicuous. She is slightly built but fairly well-
nourished. On examining the abdomen I found a good deal of tender-
ness in the left ovarian region, where there also appeared to be slight ful-
ness on palpation. She complained of pain shooting and radiating from this region, also of cutting pains commencing under the free ribs of the same side and striking round to the spine.

I was unable to make a vaginal examination, her mother considering the symptoms not urgent enough to justify that proceeding. She suffered much from palpitation and was in a highly nervous and exciti-
able condition with great restlessness and irritability, hyperaesthesia, and
mortal sensations, as of the skin being cold all over, hairs on the tongue, and sand at the finger ends. The heart and lungs were healthy. The tongue was furred posteriorly but red at the edges, the appetite was very capricious, flatulence was troublesome and the bowels were constipated.

The menstrual flow appeared on the following day being two days delayed. In the second day from its commencement she passed a membranous sac which was a complete cast of the womb, suffering severely the while from back ache accompanied by bearing down and colicky pelvic pains, after which she felt great relief, and I believe would rapidly have regained her usual health, had not an unfortunate fright the next evening (an attendant fainting while alone with her) brought on a severe accession of the hysterical symptoms which included sickness, nausea, constipation, scantiness of urine (and once slight retention) great irritability with craving for sympathy, sleeplessness numbness of the extremities occasionally replaced by hyperaesthesia.
These symptoms yielded slowly to treat-
ment, consisting chiefly of counter-
irritation at the left ovarian region,
combined with the exhibition of nerve
sedatives and tonics especially Arsenic
and finally, after a week or two at the
sea-side, her usual health returned
and she has continued better, up to
the present time.

At the second menstrual epoch while
under my care, she passed one or two
pieces of membrane, the flow appeared
at the right time, and there was
less pain than on the previous occasion
which ceased entirely after the ex-
pulsion of the membranes.

Since then I am informed that men-
struation has occurred with greater
regularity, that the membranes
have frequently not been observed
and if present have generally been
thinner and less perfect than before.
and that the accompanying dys-
menorrhoea has, as a rule been
much less severe, though occasional-
ly the pain has been decidedly
acute.

The following is a description of the
sac-like membrane expelled the
day after my first visit. In general appearance, it resembled an early abortion, the external surface being rough, shrewdy and much blood-stained. When washed it was uniformly pale reddish-brown in colour. It was regularly triangular in shape, and measured about an inch and a quarter in length, and three quarters of an inch in width, at the base of the triangle. It contained a cavity, lined by a smooth surface, in which was some clotted blood. I believe I distinguished openings corresponding to the Os Internum and the Os Galliopii.

I now forward with this Thesis a more recent specimen, which I have lately obtained from my patient, it does not form a complete cast of the womb's body, and is not nearly so perfect as the one just described, as a portion of membrane corresponding to a large part of the fundus is torn away. It shows sufficiently however the rough, shrewdy external appearance, and the shape closely following the interior
of the uterus, also the internal canal or cavity, which was perfectly smooth when the specimen was first obtained, but now, owing to unavoidable disturbance in handling, transit, &c, this smoothness does not offer such a complete contrast to the rough external surface. The torn margins of the membrane have also, from the same cause, assumed a ragged appearance, which was not present when it was examined soon after its expulsion.
Sufficient proof of the interest attaching to this subject of Membranous Dysmenorrhoea, is furnished by the numerous noted names one encounters on perusing the literature extant. The disease, as its name implies, has for its pathognomonic feature the discharge of membrane at the menstrual epoch, either in the form of shreds or representing a more or less perfect cast of the womb.

Dr. Oldham and Sir J. Simpson nearly forty years ago, almost it seems simultaneously, published an explanation of the source and pathological structure of these membranes, which is now almost universally regarded as correct, namely that they are expelled portions of the mucous membrane lining the uterus. (Lond. Med. Gazette. Apr. 17. 1846)


Much difference of opinion however still exists among gynecologists as to the cause of their formation.

Among the earliest recorded cases of the kind is that of Margagni, whose exact description of the expelled membrane is quoted by Sir J. Simpson, in his communication before mentioned, as also are remarks on the subject by Churchill
Montgomery and Copland, who together with all previous writers, regarded the membranes as formed of plastic lymph due to inflammatory exudation. Sir J. Simpson drew attention to the following points in corroboration of his assertion: the anatomical character of the membrane, which is not found in any simple inflammatory exudation but is identical with that of the lining membrane of the uterus, especially as regards the presence of the utricular glands. Also the configuration of perfect membranes and their resemblance to the decidua vera, which had previously been proved to be, not a new formation after conception, but merely the normal mucous membrane, hypertrophied with the glands increased in size, and the cells greatly developed and multiplied, he thought that this hypertrophy might not occur to such an extent in the dysmenorrhoeal membrane, but that otherwise the two structures are identical.

As regards the cause of the malady, he says, "the action giving rise to it may in some cases be combined or complicated with inflammation but essentially the normal action..."
of the uterus or ovaries, giving rise to the formation of the dysmenorrheal membranes, is not a state identical with inflammation but identical with the condition of these organs after impregnation, and during the earlier weeks of pregnancy. Oldham, coinciding with Sir J. Simpson as to structure, regarded the formation of the membrane as due to the "lifting up of the uterine mucous membrane from its base during the intermenstrual period, and its extrusion at the next epoch, he believed Congestion of the ovaries (by transmitting an irritant action) to be the cause, as he frequently found them sufficiently swollen, to be felt through the abdominal parietes. Cistern first pointed out that the mucous membrane of the uterus normally undergoes considerable development at the menstrual mucus, so as to be scarcely distinguishable from the decidua produced in early pregnancy, and this led Virchow to name the membrane Decidua Menstruæ.

Among the more recent writers on the subject, Tilt agrees with Oldham
in regarding Ovarian disease as the exciting cause.

Raciborski, Handfield Jones and Lebert follow Sir T. Simpson, in believing it to be a pure explication
of the uterine mucous membrane, for which no cause can be assigned.

Hlub with others, still thinks it due
to metritis as formerly held by Mont-
gomery, Dewees, Siebold, Frank, Mac-
gele, &c.

Scanzoni, is stated by Mandl of
Vienna, (in a paper translated and in-
1869-70) to range this affection among
the congestive dysmenorrhoeas, he ex-
plains the production of the membrane
by the fact that "the blood being
prevented from transuding by the
swollen mucous membrane, leaves
the latter, and finally causes its pain-
ful expulsion."

Hogas and Eugenbrodt are said by the
same writer to designate this af-
ficition Dysmenorrhoea Acutalectica
they consider a large amount of hy-
peramia of the uterine walls is present,
which is followed by excessive develop-
ment of the mucous membrane.

Courtly also favours this view.
Mandl himself considers Inflammation to be the cause of the membranous proliferation, that alone being able in his opinion to account for the symptoms present.

He believes that the uterine glands are affected, they becoming larger and broader, and that the size of the membranes expelled varies according to the extent of their involvement.

Chronic metritis is the result.

He believes the clinical facts endorse this view, and that complete anti-flexion is an accompanying condition as also a “group of reflex symptoms caused by the morbidly affected and displaced womb, thence probably conducted through the sympathetic and sacral plexus towards the medulla, whence they emanate as most manifold neuroses, or as a collection of these symptoms known as so-called hysteria.”

Hausemann and other writers have regarded the membrane which so closely resembles an early abortion, as a decidual formation, excited by conception, though no trace of the womb may be present, the foetal organism having perished, or escaping notice.
Courty as a contradiction of this theory, relates a case of a girl who passed membranes, one of which he extracted from the Os uteri by forceps, through a small speculum, without injuring a virginal hymen. My own case alone also is sufficient to dispose Hausman’s explanation. Barnes describes the membranes when entire, as resembling hollow triangular sacs, sometimes showing irregular openings at each angle, corresponding to the Os Internum and the Ostia of the Fallopian tubes, they are rough externally with a smooth interior and generally about one inch in length and rather less in width. Microscopic section shows a structure resembling the uterine mucous membrane, the utricular glands being plainly seen. He distinguishes between the true membranes, just described, and casts formed of fibrin and mucus, which occasionally occur in acute cases of endometritis, and also the intermenstrual casts occasionally met with which originate in the vagina, both these latter failing to show the decidual structure under the microscope.
Barnes considers it doubtful whether one single case of membranous dysmenorrhoea has occurred in which some morbid condition of the uterus was not coincident, congestion at least being always present, and he inclined to the apoplectic theory, believing that an exudation of serum or blood occurs in the inner uterine wall, causing a layer of mucous membrane to be thrown off, and that the detachment and expulsion are completed by the consequent spasmodic contraction. He thinks the symptoms (typically shown in my case) coincide with this view, and that the hysteria and nervous derangement, so constantly seen, are secondary to the local mischief.

Shanas cannot consider Endometritis to be the exciting cause, as he found that absent in four cases out of five he regards the malady as rare, only having had five true cases.

Williams (Dr. John of London) has written an able paper on this subject (Trans. Lond. Obstet. Soc. 1875) in it he brings forward fourteen cases, one or two of which were under observation for a considerable period. He thinks
that in studying the pathology of this form of dysmenorrhea, regard must be had to four things namely, the history of the patient, the structure of the product expelled, the state of the uterus, and the normal process of menstruation. He states he discovered some trace of inflammation of the inner surface of the womb, in all the cases he examined, which he considers secondary, though a source of aggravation. He argues that the membranes expelled have no analogy in structure to the false membrane excuded in croup, or to the contents of the bronchial tubes in plastic bronchitis, the first being always a product of acute inflammation and the second composed of either a fibrous cast, arising from extravasated blood, or tenacious mucus containing a few leucocytes. In puerperal fever and acute specific inflammation, he admits a false membrane can undoubtedly be formed on the lining membrane of the uterus, as on any other mucous membrane, but acute inflammation is a necessary factor. The symptoms of which are not
found in cases of membranous dysmenorrhoea. Passing on, he points out the fallacy of the opinion that the membranes are products of conception, many of his cases being virgins, and this also disallows the possibility of sexual intercourse being the exciting cause.

Hyperplasia of the menstrual decidua he states is not a possible cause, the mucous membrane being known to be normally a quarter of an inch in thickness just prior to menstruation, but none of the very many membranes he has examined, measuring more than one eighth of an inch in thickness. He has not been able to verify Finkle's statement that the membranes shed are in a state of amyloid degeneration.

Williams thus describes the membranes passed in the second of his cases, he examined 25 of the products expelled.

"The membrane resembles a flattened triangle, colour brownish-grey, surface stained with blood. It measures two and a half inches in length, one inch at the base, and half an inch at the part corresponding to the
Os Internum. In its centre is a canal, measuring half an inch in width, at the base, dividing into two branches, corresponding to the cornua uteri. These branches could be traced toward the surface, but openings corresponding to the ostia of the Fallopian tubes could not be distinctly seen. The canal contained a thin clot.

On section, the membrane appeared striated, containing small blood effusions, it was composed chiefly of round and fusiform cells, the former greatly predominating and blood vessels. The round cells were similar to those found in normal decidua at the menstrual epoch. There were spaces visible which were doubtless utricular glands. Some of the floculi of the rough external surface appeared to resemble the casts of tubular glands. The matrix was generally homogeneous, but in places slightly fibrillar.

All the membranes showed a very similar structure, in the different cases, and in all the utricular canals, more or less perfect, were seen, though in many cases destitute of
epithelial lining, the olfactory epithelial lining of the uterine, was not found preserved in any case.

Williams believes that the source of the decidua membrane, the uterine walls should be examined as the probable seat of the mischief. In his fourteen cases, eleven probably suffered from membranous dysmenorrhoea, from the commencement of menstruation.

Of these eleven—seven had clots or lumps from the first.
One had no clots for the first few epochs.
Two were uncertain in this respect.
Six had painful menses from the first.
One had pain after the first few epochs.
One, after the first twelve months, and in one, this symptom was not ascertained.
Five suffered from menorrhagia from the first five menstruated irregularly.

In all the eleven menstruation was unnatural from the first or shortly after its commencement.
Willams considers the above facts to indicate that in these eleven cases, there was Imperfect Evolution of the uterus at puberty. In the two youngest cases he states that the womb was somewhat small, in the others it was mostly enlarged, but that this would
result from the extra work entailed, by the periodic expulsion of the membranes.

Two cases appeared due to: Imperfect Involution after delivery & one case to Imperfect Resolution after an attack of acute metritis. These three conditions he holds can cause only one common product namely Increase of Fibrous Tissue and this he states appeared to be present, in the uterine walls of a case which died from acute Pleurisy on the fifth day of menstruation, and in which he found a partially detached membrane, evidently a portion of the decidua, inside the womb. He believes this condition was also demonstrated by the autopsy of a similar case, reported by Häusmann and he is aware of no other reports of the post-mortem appearance of the uterus in cases of the kind, having been published. He considers that the microscopic structure of the membranes confirms this view of the cause of their formation, the round cells being in excess, the fusiform, larger than are found in normal mucous membrane, prior to menstruation, and the matrix fibrillar, in places, these conditions he says are due to excess of
Fibrous tissue, and, enabling the membrane to offer increased resistance to disintegration, cause it to be detached in mass, as occurs in other parts of the body, when fibrous tissue is destroyed. Gusselew (Professor of Strasbourg) alluding to the subject, in a lecture on "Menstruation and Leucorrhoea" (Germ. Clin. Lect. New Syd. Soc. Jr. 1871) says, though many cases of abortion are classed under this head, there can be no doubt that the expulsion of the decidua Menstruæalis, in toto or in fragments may occur in cases in which the idea of conception or even cohabitation must be excluded. Considering the normal nature of menstruation, and the dissolution of the decidua, he regards it as intelligible, that continuous layers of the decidua Menstruæalis should be expelled in mass, when the breaking up occurs in consequence of haemorrhage into the deeper layers of the mucous membrane, (as is believed to occur by Solowief) or other disorder, and not in the usual way. He points out that the depth at which the separation occurs, will be indicated by the presence (perfect or imperfect) or absence of the uterine glands in the detached portions of membrane.
He mentions a case, in which at one
menstrual period, the decidua was
twice expelled, as a membranous sac,
superficial and deeper layers being
separated in turn, and states that
Soloweff has also described a sim-
ilar case.

Dr Cory brought forward a case at a
meeting of the Obstetrical Society of
London, in confirmation of Haidmaans
Theory. (Lancet June 1st 1878)

His patient never passed membranes, pre-
vious to marriage at the age of thirty.
During the first two years of married
life, she aborted three times, about the
second or third month. Since then
she had almost invariably passed mem-
branes, with previous acute dysmen-
orrhea, on the second day of the periods,
which were perfect uterine casts, as
shown both by their naked eye
appearance, and microscopic section.
Later on, she lived apart from her
husband for nine months, when she
menstruated regularly, without any
membranes.

Dr Gedson showed, as being on
this case, a decidual membrane
with a very small ovum on it, which,
without very careful examination, might
be easily overlooked.

Dr. John Williams concurred in considering the membranes in L. Cori's case to be products of imperfect conception, but denied that the case was one of true Membranous Dysmenorrhoea.

Dr. Avelling hesitated to adopt the view entertained by the author of the paper, as he thought that a hyperaemic condition leading to Membranous Dysmenorrhoea might have been caused by the irritation of sexual intercourse.

Schröder (Ziemssen's Cyclopaedia of the Practice of Medicine, Vol. 10) writing on the subject says, that the researches of Kundrat and Engelmann have thrown new light on Membranous Dysmenorrhoea, i.e. "the menstrual discharge of the superficial part of the uterine mucous membrane in a more or less coherent form." According to these observers, the glands of the uterus become increased in length and width during the menstrual period, and the subjacent tissue swelled from proliferation of round cells, these processes develop gradually before the haemorrhage, which is not the expression of the great-
... congestion, but is a process due to the fatty degeneration of the uppermost layers of the mucous membrane, and already retrogressive. Membranous dysmenorrhea he considers merely an enhancement of this process, considerable layers undergoing fatty degeneration, are then consolidated, no longer in minute particles but as threads or a coherent membrane. The pain he believes to be due to the contraction necessary to expel the membranes through the cervix.

The cause he believes due to various processes, viz., sometimes merely to increased development of mucous membrane, at others to chronic disease of the womb especially metritis, and endometritis and especially to any processes which otherwise occasion the proliferation of the mucous membrane. He describes the membranes very similarly to Barnes, Williams, etc.

The symptoms he says are these... The menses are generally regular, and the membrane is cast off on the second, third, or more rarely fourth day. At the beginning of the complaint expulsion is often unattended...
by pain, but in other cases there are attacks of uterine colic, in fact most violent paroxysms, particularly if the process be prolonged, and there are several separate pieces. During expulsion the membrane by plugging the cervix, may lead to an arrest of the haemorrhage. The intermenstrual periods are free from pain. Chronic Catarrh is a very common complication, indeed it may often be regarded as the cause. Metritis is also quite frequent, either having been present before, or setting in as a consequence of the dysmenorrhoea.

Sterility is the ordinary result.
The Diagnosis is easy between the menstrual decidua and a simple fibrinous coagulum to which it has a superficial resemblance, by careful examination of its gross appearance, and more easily by the microscope, but between it and an early abortion diagnosis is frequently very difficult.

Diagnosis is unfavourable, recovery occurring only at the menopause.
The Treatment of the Disease

Williams considers very unsatisfactory. Prophylactic measures he deems of great importance, to mature uterine evolution, such as regular exercise, plentiful fresh air and also is care in subduing completely all inflammations of the womb.

When the condition is established he regards Electricity as the only likely curative agent. He afforded great relief by remedying an inflamed condition of the cervix, which was present in several of the cases, this he effected by the application, once or twice, of Fuming Nitric Acid to the uterine cavity, without producing any change, however, in the membrane formation.

The various other writers, I have quoted, also agree in considering treatment unsatisfactory.

The application of various caustics to the uterine cavity, is very generally recommended, with the object of relieving any accompanying symptoms of inflammation (if present), sedatives they say, during the severe dysmenorrhoal pain may be called for, and they mostly suggest also occasionally systematic dilatation of the Os or division of the Cervix to facilitate the passage of the membranes.
the exhibition of general Tonics, especially Arsenic, for a continuous period. They all agree that the disease is not cured unless the membrane formation ceases to occur, which has not happened in any case reported in the writings to which I have had access, though in one case, Williams states their production was omitted for a year, and Mandl also relates a case in which he considers he prevented the occurrence of membranes more than twice in ten months, by the almost constant application of a solid stick of Chlorate of Potash to the uterine cavity, for some days prior to the menstrual epochs, after discontinuing the treatment, however, they returned as usual. He employed Chlorate of Potash because "it is known to posses decided influence on the liquification, and resorption, of epithelial growths, and pseudo-membranos excudations."
Guissone in his interesting lecture on menstruation, quotes Sigismund as first advancing the theory, that swelling of the uterine mucous membrane, and the discharge of ovum, are two simultaneous processes, independent of each other, and that if an ovum, which has reached the uterus, be not fructified, decay of the mucous membrane, by regressive metamorphosis results, and this causes the injury to the various vessels, followed by haemorrhage which therefore indicates, that the ovum has perished. He further states that the investigations of Lükenhalt on the duration of pregnancy, endorse this view, and show that it is the ovum of the menstrual epoch which fails to occur, which must be considered as the starting point of pregnancy, and according to his calculations, impregnation probably occurs, five to eight days before the expected commencement of the menstrual flow; the ovum then fructified reaches the uterus, where the mucous membrane is already becoming swollen.
and the decidua is in process of formation, where nothing opposes its further development, the mucous membrane, stimulated by the im-
pregnated ovum, going on swelling and menstruation failing to appear.

Gussevrow mentions that the researches of Reichart, which he considers of much value bear out Sigismund's theory, which it will be noticed
coincides with the opinions of Hundrat and Engelmann on the subject, according to Shroeder, to which I have previously alluded.

Regarding this as the normal process of menstruation I am inclined to consider it not improbable that excessive congestion and an increased amount of fibrous tissue may each take part in the production of Membranous Dys-
menorrhoea; thus, an abnormally congested state of the sexual system at ovulation, would account satisfactorily for the constant ovarian pain and tender-
ness, which is met with as a very early symptom in so many
cases, (my own among them) and is frequently accompanied by prolapse of the organ.
Further, this acute congestion might be expected to lead to the extravasation of blood in the deeper layers of the tumified mucous membrane of the womb, and ultimately cause separation of the membrane as a cast, or in shreds, the production of which would, meanwhile be greatly favoured by increase in amount of fibrous tissue in the walls of the uterus, tending to prevent disintegration, (as explained by Williams.)
If as Williams believes, increase of fibrous tissue is the sole cause of their production, it is difficult to understand, why, in my case, the menses remained free from clot, or lumps, regular, and comparatively painless until five years since, when the membranous condition was suddenly established and followed closely a severe nervous attack. In this instance therefore, it seems to me, the membranes, being apparently of comparatively recent origin, can
hardly result from defective evolution alone, as we should then have expected a history of their presence from the commencement of menstruation, or shortly after that period, and Williams' other two sources of increase of fibrous tissue viz. imperfect involution, and imperfect resolution after inflammation, are also obviously inadmissible when the history of the case is considered.

Again, the fact that in some cases recorded, the membrane production ceased for periods of ten or twelve months, and then recurred with previous regularity, seems to me to tell against this being the sole cause, and so does the rarity of the affection when we remember that increase of fibrous tissue in the uterine walls, must be a by no means uncommon condition.

This latter point may I suppose however be equally urged against congestion as the cause of the malady.

Another point which strikes me as important, is the disordered con-
dation of the Nervous System which seems almost universally present. Two of Williams's cases suffered from epileptiform attacks, and all are more or less described as nervous and hysterical. He in common with Barnes, Mandell and other writers to whom I have alluded, seems to regard the condition as secondary to the local mischief, but may not, at all events in some cases primary derangement of the Nervous System following a mental strain or similar exciting cause, account for this modification of the menstrual process, by causing a complete alteration in the amount (or possibly character) of the reflex stimulation, directed through the sympathetic to the sexual system generally, and the uterus in particular. It appears to me certain, that in my own case, a severe tax on the Nervous System was causative besides being antecedent to the first membrane formation.

As regards the best method of
treating the disease.
Williams speaks highly of 
Electricity as a curative agent 
though it seems to have done 
little, when employed in the 
cases he describes, the second of 
which was galvanised in hospital 
twice a week, except during men- 
struation for eight weeks, and 
afterwards once a week for several 
months without any effect on the 
production of membranes, a rather 
free haemorrhage being set up on 
each application. His third case 
was treated with Electricity once 
a week for months, one pole being 
applied to the lumbar region, the 
other to the cavity of the womb or 
the ovarian region, without bene- 
fit accruing. Though in this case 
no haemorrhage followed the 
application. In the seventh case 
rest in bed and a galvanic stem (present) 
were tried for three weeks, and at 
the next menstrual epoch there 
was considerably less pain, but 
the following periods were as pain- 
ful as ever and the membranous 
shreds just the same.
Williams' results from Electricity
therefore seem to me to be decidedly the reverse of encouraging.

Williams, in his first case, prescribed Arsenic (Fowler's Solution) and this seemed to produce at first a very good result; for after taking it for some weeks, the patient, much improved generally, omitted to pass membranes for eleven months; they then, however, recurred as before and the Arsenic seemed to fail in effect. The fifth case also derived much benefit from Arsenic.

Both these patients were confirmed sufferers from Asthma, which was also greatly relieved. Iron was of benefit in one case.

Williams' plan of meeting any objective symptoms of an inflammatory nature by the application once or twice of fuming nitric to the body of the uterus seems to have been very useful in removing the pain, for the time and mitigating the pain.

My own case, I believe, derived indubitable benefit from a course of Arsenic, for since its exhibition my health has steadily been maintained, the menstrual
periods have been less painful, and the membranes have been, as a rule, less perfect, thinner, and more frequently omitted. I think therefore that Arsenic (whatever may be its mode of action) must be regarded as a very valuable means of meeting the malady.

Finis