AN IN AUGURAL D I S S E R T A T I O N
ON
M e n s t r u a t i o n .

S U B M I T T E D T O T H E
O F T H E
U N I V E R S I T Y O F N A S H V I L L E ,
F O R T H E D E G R E E O F

B Y
J a m e s E. W a t h r n s

O F
S p r i n g f i e l d , T e n n e s s e e .

1 8 5 4

W. T B E R R Y & C O ,
B O O K S E L L E R S A N D S T A T I O N E R S ,
N A S H V I L L E , T I N S .
Menstruation

The female is subject to a discharge of blood from the uterus, which has many names, owing to its periodicity. The terms menstruation and catamenia answer all two purposes. The period of the female life at which this discharge commences, varies according to climate; in southern climates it is said to make its appearance, at a very early age, generally, however, from the age of Twelve, to fourteen. Whereas, in northern climates it ordinarily begins from the fifteenth to the the twentieth year of the female life. In females who commence at the age of from twelve to fourteen, generally, cease at about the thirty-fifth or sixty-seventh year of their life; and on the other hand, when they commence,
minimizing at such an advanced period, they generally cease from fifty to sixty.

The duration of this discharge is ordinarily from two to six days, however, every woman seems to be governed by a law of her own special nature. The amount of this discharge is estimated to be from two to eight fluid ounces at each term; these are many exceptions to the general rule; for instance, these are some who eliminate ten or even twelve fluid ounces, while there are others who do not eliminate more than one or two.

So soon as the catamenia makes its appearance in the female, she is then capable of propagating her species.
This discharge, as a general rule, pertains to a woman no longer than she is capable of conceiving; these are, however, many women, who do conceive after they lose the power of menstruation. This is considered as an exception to the general rule.

Menstruation, as a general rule, occurs once every twenty-eighth day; this admits of many exceptions: women very frequently menstruate every twenty-first or second day.

Much disputation has attended the investigation of this discharge; some authors contend that it is an effusion of blood, while others believe it to be a secretion. Some authors declare that it comes from the arteries, and others believe...
that it comes from the veins of
the uterus. These disputes appear to be
pretty well decided in favor of its being
a hemorhagia. I think that blood
cannot be secreted. Dr. Keigs remarks
that a woman could as well secrete
a muscle, kidney, a liver as a blood-clot.
There is a great discrepancy of opinion
among physicians even, at present.
Some contend that it is a secretion,
while others believe that it is a hemor-
hage. I think from the analyses that
have been made by different authors,
that it is, when poured from the
vessels, pure blood. And if it be
blood why is it not a hemorhagia.
We know that the uterus
is copiously supplied with blood
vessels; and the manner in which
we account for the discharge containing mucous, is that only a portion of these vessels are engorged at the same time. These vessels that are engorged pour out blood, while the mucous membrane which lines this cavity is secreting mucous and hence the sanguino-mucous discharge.

Mr. Morpas says that all that was said on the nature and causes of reconstruction prior to the year 1835 was nonsense, and our real information began to acquire some philosophical estitude from the moment of the discovery of Perkin's vesicle, which, so bright a dawn upon the nature and laws of reproduction.

Yet this be as it may we have
prpf. sufficient, I think to justify the conclusions of authors who contend that this discharge is a hemorrhage and not a secretion. And for further proof of this discharge being a hemorrhage, when it is found abundant, passing from the cavity of the uterus, it is nearly pure blood. And on the other hand, when it is found, hastily passing over these cavities, to contain a great deal of mucus, the ovaries seem to exert a good influence over the catamenia. Abortion seems to be owing to an influence exerted over the womb by the ovaries. There are many theories brought forward to explain the efficient cause of menstruation; the most of which
are very unsatisfactory. The most popular is that which looks upon the maturation and escape of ova as the efficient cause.

It is said that every twenty-eight days a Graafian vesicle rises to the surface of the ovary and during its development and enlargement puts the membrane, Tunica albuginea and peritoneal coats, upon the stretch, and in that way becomes a source of irritation; in consequence of which there is an afflux of blood to the parts. That is to the ovaries, tubes, and uterus, which is discharged in the uterus; the vesicle finally ruptures, the irritation is removed, and the flow ceases. This view is supported by many.
And menstruation seems to be a function of the uterine designed by nature, for some great cause, and this cause is unquestionably, a preparation for conception. Women are found to be more readily impregnated, immediately, after this monthly term, and if such be the case it proves that which I have just remarked, with regard to the design of this discharge. A woman that conceives does not on that account discontinue, that account cease to mature and deposit her germs, and she retains a strong tendency to menstruate, it an advanced period of pregnancy; yet as a general rule she does not discharge
the menstural fluid: but there are many women who do menstruate after conception, but this is an exception to the general rule.

It is said that a woman is more liable to abort at her menstural crisis, than at any other time, which must depend upon the uterine effort, under the periodical exacerbation of the gemiferosus force.

Women who have a nursling at their breast are not apt to menstruate till their children are seven or eight months of age; and there are hundreds, who do not menstruate, until they have weaned their children. Yet they are liable to become pregnant. You can readily see that a woman can bear
several children, without instructing, and at the same time be in good health. As to the young girl. These are many brought up in the country to daily exercise. you will very rarely see one of these sent to college to complete her education without its interfering more or less with the catamnia: whereas had she remained at home she would have been regular. So soon as she takes her seat in school rooms, and devotes several several hours during the day to hard study, she will find that the menses will suspend; and probably remain till she leaves school, and ceases to employ the force of her nerves, in those
intellectual or mental operations. That require for this effectuation, all the vital force she is capable of exerting. The consumption of this force of nerves leaves her destitute of both the power, and necessity, of discharging the menstrual fluid. Young girls are very apt to become deranged in this way, although this derangement does not interfere with the true physiological office, ripening, and the discharging of her monthly corium from the womb. This shows how easily this function may be interfered with, and also how essential it is for us to keep in mind this important function.
The pregnant and suckling female do not menstruate because the life force is fully occupied; yet they fulfill the germiferous law.

The secondary school girl does not menstruate because her nervous mass is preoccupied.

As we proceed it is well for us to say something with regard to those unfortunate females who never menstruate and yet enjoy good health.

There are many recorded cases of females who never menstruated, and the reason, when ascertained, is because they are destitute of ovaries or uterus, or probably both.

And how unfortunate it is for the female to be destitute of that great
and important function designed by nature, for such an important end. And how often, unfortunately, are females, who are without these important parts, suffered to many. And she is able to describe the feelings of a husband or wife, under such circumstances. Whereas had this female been examined by a physician, she would not have fallen in such a deplorable condition; she is now the wife of a husband, and cannot reflect without concurring of his unhappy condition.

Attempts to bring on menstruation in the absence of one or both of these important parts, is well calculated to bring ridicule upon a physician.
Therefore a physician should be cautious in his dealings, with absent menstruation. In such cases it is highly necessary that a physician should, always, be on his watch; should he purchase, make this unfortunate mistake, and administer his emmenagogue, he would be ridiculed not only by the medical world, but by the non-professional.
And hence it is of paramount importance that he should keep these matters in view. These things with many others of vast importance, pertaining to this important subject, should be well considered, by the practitioners of medicine.

James H. McArthur.