No. 340

AN

INAUGURAL DISSERTATION

ON

Menstruation.

SUBMITTED TO THE

PRESIDENT, BOARD OF TRUSTEES AND MEDICAL FACULTY

OF THE

University of Nashville,

FOR THE DEGREE OF

DOCTOR OF MEDICINE.

BY

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OF

Alabama.

1857.

JOHN YORK & CO.,

BOOKSELLERS AND STATIONERS,

NASHVILLE, TENN.

"Menstruation"

This peculiarity of woman is certainly one of the most wonderful, with which we meet in our scientific investigations in physiology. It is a wonderful and peculiar subject, and I may say an interesting topic for a medical essay.

But feeling my inability to treat of so difficult a function with clearness, precission, and credibility, it is with much diffidence, that I attempt it. But owing to some peculiority of disposition, I have ever felt a strong interest in "woman" and have with no little pleasure endeavored to understand to some degree her peculiorities and try to ascertain, the especial

laws which govern her physical system. The subject of menstruation, as a physiological phenomenon presents one of her most peculiar characteristics. This phenomenon mark the true distinction between the laws which govern the conception of "woman," from the excitement, which characterizes the breeding of inferior animals. Different writers have applied different names to this discharge, viz menses, Catamenia, Flores, but it is most generally termed menstruation. The signification of the term itself applies a periodical discharge, occuring at regular intervals. The time of life at which it occurs is influenced to

a great degree, by habit, climate, and association. The period stated by most writers upon the subject, that in temperate climates it makes its appearance between the thirteenth and fifteenth years, but it may vary from this, and not make its appearance until the twentieth year, and on the other hand, may make its appearance as early as the ninth year. In warm climates it makes its appearance much earlier, than the time stated in temperate climates. In cold latitudes it is thought to be much later in making its appearance. But upon this point there is quite a diversity of opinion.

But that temperature exerts some influence over it, we must conclude, that when the temperature is raised, the temperature of the body is also elivated, and that menstruation may occur earlier, and for a like reason we would state its appearance at a later time in cold climates. The period in England seems to correspond, with that of ours. Furthermore this function may be influenced by bodily and mental habit, and early marriage to develop itself earlier. Also confinement in close and warm rooms, want of exercise, which we notice in the difference between the

"girls" of our cities, and those of the country. We now arrive at the symptoms of puberty, or the age at which menstruation commences, at which time the woman is capable of conceiving. The age of puberty is marked by a series of changes which develop themselves, and which are of great importance in the animal economy, and also affect both the moral and physical character of the female. Many changes which now take place, continue during its continuance. The chest becomes rounded and full owing to the development of the mamary glands. The height of

the individual is in a majority of cases fixed and established. The neck and limbs become more perfectly developed, features assume a more definate appearance. The adipose tisure becomes more abundant over the whole frame, which gives it that characteristic roundness, and symetry which is so enticing to the oposite sex. The organs of generation, both eternal and internal undergo a marked change. The carriage too being changed from the careless and irregular movement of the girl; to that beautiful and dignified movement so characteristic

of woman which seems to make her feel the mastery which she possess over man. The voice which previous to this time somewhat resembled the peculiar shrill and harsh sound of the child now becomes fully developed and possess those gentle and sonorous notes, so captivating and soothing to the ear of all. The "Mons Veneris now becomes cushioned with a luxurious growth of hair, the axilla also becomes filled with this growth. The "ovaries" are now fully formed, being doubled in size; the uterus also undergoes a decided change; The pelvis

enlarges, and the longest diameter which was antero-posterior now becomes changed to the transverse. All these changes sum to lend to the important office which it is their function to perform, namely that of conception, and parturition. The interval which elapses between the menstrual periods is stated to be near 28 days or about one lunar month, but a deviation may occur, owing to the length of time the flow occupies in different individuals. The amount of blood lost at each time, is not definitely fixed, but varies in different persons, so that what

would be a normal quantity in one, might be menorrhagia in another, and what would be a sufficient quantity in one, probably would be regarded as amenorhea in another. Hippocrates estimated it to be eighteen ounces, but this quantity far exceeds the amount discharged in the majority of cases, among the females of this climate. Writers generally estimate it at from four to ten ounces. It probably like the function of menstruation, is influenced to some degree by climate also. The period of life at which it ceases, we notice too, has the same

irregularities in regard to time, that govern its commencement, as to interval and quantity. But in as much as authors denote some definite periods for its cessation, we take that set down by the leading writers, which is from forty to fifty years of age. The pathological conditions attending the cessation of the menses are looked forward to with a great deal of anxiety by the female, as the commencement of the decline of life. The skin assumes a shrivelled and yellow appearance, the hair turns gray, the uterus and its appendages become diminished in size, the mam-

ary glands dry up, but
plethora of the system gener-
ally may now take place,
or anemia may come on.
Many diseases to which the
woman, may be predisposed,
but which have been latent
in the system may make their
appearance at this critical
period. Such as phthisis, can-
cer, or other malignant diseases
may attack the uterus, mammae,
or other parts of the body, and
rapidly destroy the patient.
Sometimes a leucorrhoea of a
very obstinate and difficult
nature may succeed the
menstrual discharge. There is
often too, to be found a hy-

pertrophied condition of the cervix or whole of the uterus, and slight inflamation of its lining membrane. The great importance of this function being regularly and physiologically performed to the health of the female, is a fact well proven from the many complaints we every day see arriseing from a derangement of this function. We know that many diseases arise from the supression of the menses such as dysmenorrhea, though not strictly a suppression, is yet an example of the suffering the female undergoes when the function

is partially interrupted. The beautiful rosy hue, which renders the face of woman so captivating and interesting is dispelled and in its place the pale waxy hue comes from this function being interfered with. Hysteria, epilepsy, and catalepsy also often depend upon a lesion in this function. These diseases rack the whole frame, and interfere both with the mental and physical health of the unfortunate female. The wide range of sympathy we find to exist, reflecting itself as it were from the "Uterus" to the whole system, renders it a most difficult sub-

ject to be understood, and one that embarrasses the physician no little in arriving at a correct diagnosis. Vicarious menstruation is a proces by which nature relives herself by throwing off regularly at the menstrual period that excess of fluid, by some other chanel than the uterus, its proper outlet, which shows also as we above stated the importance to the system that this function should be performed. This can occur from the stomach, nose or amputated stumps, or any other abrasion on the body. Vicarious menstruation seems to be a derivative in-

fluence, instituted by nature to diminish the general plethora, and thus relieve the economy from more serious injuries. The chimical reaction of this fluid is acid as it flows ordinarily from the vulva, thus differing in this respect from ordinary blood which has an alkaline reaction. Under all circumstances we find blood flowing from a devided vessel to present this alkaline reaction. The acid reaction of menstrual blood is no doubt due to the acid mucous it meets in its passage through the vagina to escape at the vulva: which is proven

by collecting it upon the speculum at the os uteri, when it presents the same alkaline reaction as ordinary blood.

The surface from which it flows is the mucous surface lining the inner walls of the uterus. more strictly speaking the body, which has been fully proven by examining the flow during its process in procidentia uteri. Formerly physiologist contended that the discharge was a secretion from the matrix, but later physiologist and those too who have paid most attention to it contend that it is a hemorage. It has been

ascertained by those who have investigated the subject most fully and closely, from analyzing the blood from other parts of the body than the uterus in vicarious menstruation to be a hemorrage - also when collected upon the speculum before it has mixed with any other fluid, it has the same characteristics nearly that ordinary blood has, and the only way in which it differs from common blood, is that it does not contain quite as much fibrin, which vitalized element causes blood to coagulate. This may be owing to the secre-

tions of the vagina giveing it an acid reaction. That it is a humorage is proven by the best chimical and microskopical examinations. From the earliest times of medicine to the present date much has been written in relation to the causes, which determined this periodical humorage. It seems that at a very early in the age of medicine, many theories were put forth to explain it, and one of the most prominent and favorable was governed by Lunar influence. That at every revalution of the moon around

the earth this flood took place from the woman. This theory which to us seems very absured, met with many and able supporters of that day. Others thought it depended upon fermentation in the "Uterus" in order to expel noxious materials from the system. But these and many others as absurd theories have become exploded, and the true cause is now thought to depend upon ovarian excitement. This is now argued and many facts within the last few years have been brought forward, to sustain it, by the ablest

obstetricians of the day. Among the number is W. Tyler Smith, who undoubtedly stands at the head of obstetric medicine. At every menstruation a graffian vesicle bursts and is discharged. Again woman who have no ovaria never menstruate, even although the uterus be present. It is found that woman who have the ovaria perfect, breast, and external organs of generation well developed, and in whom the sexual desires are strong, but in whom the uterus is congenitally absent, a monthly nidus occurs, consisting of pain in the lumbar region,

and other symptoms, which indicate that ovulation takes place regularly, though no sanguineous discharge takes place. In these distressing cases, there is sometimes a show from the vulva, or an attack of epistaxis, or bleeding from other portions of the body, indicating ovarian excitement, but not a true menstrual flow takes place. A case reported by a Mr Pott wherein the ovaria were extirpated, and the woman ceased to menstruate. Another case reported by a Mr Fredrick Bird, who removed both ovaria, on account of

disease of both ovaria, and in this case permanent amenorrhea was the consequence. Dr. Roberts states that many of the woman of India who are subjected to the operation of castration never menstruate. Other arguments in favor of ovarian excitement is that during gestation, and lactation, when generative excitement is transmited to the womb, and then to the mamary glands, there is no menstruation.

Thus it seems to be very nearly demonstrated that the prerogative of the ovaria is coetaneous with menstruation, and that ovarian excitement is its determining cause.