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# OCCURRENCE OF THE MAMMARY SECRETION,

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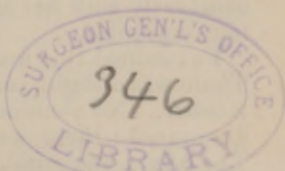
## CERTAIN RATIONAL SIGNS OF PREGNANCY

IN TWO NON-PREGNANT WOMEN.<sup>1</sup>

BY

GEORGE WOODRUFF JOHNSTON, A.M., M.D.,

Washington, D. C.



THE first patient of whom I shall speak is a woman, 32 years of age, stout, and of a healthy appearance. She has been married thirteen years and has been twice pregnant. Two years after marriage she was delivered at term, after a spontaneous labor lasting eight hours, of a living child. The second pregnancy terminated in an abortion at four months, six years ago. Her menstrual periods began when she was 18 years of age. As a rule they have recurred regularly every four weeks, lasted six or seven days, were normal in quantity, and were unaccompanied by any marked discomfort. There was no flow during either pregnancy, but six months after the living child was born and while she was nursing it, the catamenia reappeared. As has been said, her last pregnancy ended in an abortion six years ago, and after this she menstruated regularly until nine months ago. Since that time the flow has been very irregular, small in quantity, and has presented the characteristics, not of the normal menstrual discharge, but has been a mixture of mucus and blood, the former being in excess of the latter. During the past nine

<sup>1</sup> Extracts from a paper read before the Clinico-Pathological Society of Washington, D. C., June 19th, 1888.

months there has been frequent nausea and vomiting, a capricious appetite, constipation, and an increased and annoying flow of saliva. There has been also marked vesical irritability and a constant dragging pain, felt most intensely in the hypogastric region and about the sacrum. For the past five months she has experienced various abnormal sensations in the abdomen, a feeling of heaviness as if a foreign body were present, and subsequently irregular movements, not localized in any one portion of the abdominal cavity, but sometimes marked in one region, and again in a locality far removed from the first. These movements were exaggerated after fasting, but have not been accompanied by any audible sound. Three months ago the breasts began to enlarge and a fluid resembling milk could be expressed from the nipple. Both the size of the gland and the quantity of milk (as indicated by the ease with which it could be made to escape from the nipple) have been steadily increasing. This woman consulted me in order to ascertain whether pregnancy existed or not. In spite of many symptoms now present which she had likewise noticed during her two early pregnancies, and in spite of the presence of the mammary secretion, she did not believe herself to be again in this condition on account of the absence of certain indescribable sensations which had been associated with uterogestation when it had previously occurred. She had been living constantly with her husband and admitted that pregnancy was not impossible.

I examined this woman for the first time on May 31st, 1888. There was a slight laceration of the tissues at the posterior commissure. No abnormal condition of the vaginal walls could be discovered: there was no variation from the normal coloring. The cervix was small, of the usual consistency, and exhibited no evidences of former laceration. The uterus, which was examined carefully by every possible method of exploration, did not deviate from the normal in shape, consistency, or size. Its cavity, a sound having been carefully introduced after the bimanual had been performed, was found to measure three inches. The organ was slightly retroverted and lay rather more forward in the pelvic cavity than is usually the case, but could be moved about on the finger without discomfort to the patient. On vaginal, rectal, and the various combined methods of examination, no mass nor area of increased resistance or sensitiveness could be discovered anywhere in the pelvis. The abdomen was large and its walls relaxed and pendulous, but nothing abnormal could be discovered by the usual methods of physical exploration. The breasts were larger than one would expect to find them even in a woman of stout proportions, were tense, while the nipples were erect, and deeply pigmented primary areolæ, with distinctly marked sebaceous follicles projecting from them, met the eye. No secondary areolæ were apparent. A fluid in every way resembling milk could be expressed without much effort from either breast. On compressing the nipple rather sharply a small jet of milk was



made to issue from it with considerable force. A few days after the above examination, the usual uterine discharge showed itself, watery and faintly tinged with blood. This continued at intervals for five or six days and then disappeared. The patient has been examined on many subsequent occasions without the discovery of anything new. Following attention to the alimentary tract, the tongue previously coated has begun to clean, the appetite and digestion to improve, and the bowels have become more regular. Further than this, the abdominal movements have become less frequent and less marked. An examination of the urine shows nothing abnormal. The breasts, however, exhibit no reduction, but rather a slight increase in size, and milk escapes spontaneously from them in an amount sufficient to wet the clothing. Yesterday (June 18th), in the presence of another physician, an effort was made to use the breast pump, but with negative results, although on squeezing the nipple the usual jet of fluid was emitted.

The second patient to whose history I shall refer was a short, robust woman of 28 when I first saw her more than two years ago. Her first menstrual period occurred at the age of 14; the flow appeared subsequently at intervals of four weeks, lasted three to four days, and was always rather profuse and painful. After the birth of her second child, the duration of the flow was extended to eight days, and the quantity became further increased. In the intermenstrual period leucorrhœa was constant and profuse. The woman had never miscarried, but had borne two living children, the last five years before she came under my observation.

After several months of preparation, I closed an extensive bilateral laceration of the cervix, after previously curetting the uterine cavity with negative results. The immediate and remote effects of the operation were satisfactory; the large and flabby uterine body slowly decreased in size, the leucorrhœa subsided, and the menstrual flow became less in quantity and of shorter duration.

About one year after the operation, this patient again came under observation; she had, however, been seen from time to time during this interval. Her general condition was at this time excellent. The catamenia had appeared regularly every four weeks and lasted two days, although the amount of blood had slightly increased during the preceding few months, and labor-like pains accompanied the flow.

Three months before this visit to me, that is, about nine months after the performance of trachelorrhaphy, she began to suffer from vesical irritability and morning sickness, and after a short interval she fancied that the abdomen was increasing in size and that something was moving about within it. The breasts likewise became larger, and milk began spontaneously to exude from them. On examination, nothing indicating the existence of pregnancy was discovered, but the uterus, which

had previously occupied the normal position, was now sharply retroflexed, prolapsed, and tender, but was not enlarged. The breasts were found greatly distended with milk; the primary areolæ and enlarged follicles quite distinctly marked. The secretion was so plentiful as to ooze from the nipple and wet and stain the overlying clothing, while pressure caused the forcible discharge of a jet of this fluid.

The patient was examined frequently within the next two months, and her condition remained about the same during this period; milk still oozed constantly from the breasts; morning sickness and vesical irritability continued; she still believed that she felt something moving within the abdominal cavity; menstruation, profuse but not excessive, occurred every four weeks. Simultaneously with the restoration of the uterus to and maintenance in the normal position, her condition began to change, and at the end of the succeeding three months the gastric disturbance had ceased, and with it the abdominal movements; there was no further undue frequency of micturition, the breasts gradually became relaxed and, so far as could be ascertained, empty. During this period also the menstrual flow became less copious, and the pain accompanying it materially lessened in intensity.

Here, then, we have two cases with a flow of milk from the mammary gland, in one lasting for eight and in the other already for nine months. In both cases the fluid had the same general appearance as milk, and the microscopical picture presented in the first case reported, the only one thus examined, was quite characteristic.

In both, there were certain other symptoms which would lead one to suspect the existence of pregnancy. In both, these symptoms began practically at the same time as the secretion of milk, and in the case which was followed up (the other having been under observation for only a few weeks) the mammary secretion and the other disturbances, morning sickness, etc., became less marked, and finally disappeared simultaneously. In neither case was anything done (designedly) to influence the secretion. It is evident also that the existence of pregnancy must be excluded. Hence we are compelled to look elsewhere for the causation of this untimely activity of the mammary glands. The occurrence of this activity, with other disturbances usually associated with pregnancy, began in one case, we may assume, at the same time that a hitherto normally situated uterus became retroflexed, and were dependent thereupon. This would certainly seem to have been the case, for



with the restoration of the uterus to its normal position, these conditions became less marked and finally disappeared.

In the remaining case, I confess that I am at a loss for a hypothesis. The uterus here, it is true, was slightly retroverted but not enlarged, and could be moved about freely. It is difficult also to account for the irregularity, diminished quantity, and other altered characteristics of the catamenia. Other conditions of the genitalia which were not sufficiently gross to become apparent on careful physical examination, but which were quite capable of influencing the activity of the functionally closely related mammary gland, as is quite possible, existed in this case, or else the secretion of milk may be regarded as a disturbance accompanying a premature menopause and associated with perversions of the digestive function. This latter theory is quite tenable,<sup>1</sup> although the climacteric has occurred after fifty in two of three members of the patient's immediate family, with whose histories she is acquainted, and the remaining instance, a sister, aged thirty-five, is still menstruating; and, further, although no sufficient cause for prematurity of the menopause can be found in the history of the patient herself.

Any influence of a psychic nature can hardly be considered in this present instance, although, in the other case to which I have referred, such a stimulus may have been, with the uterine malposition, one of the associated causes of the lacteal secretion. For here the woman was quite convinced that she was pregnant, and could hardly be persuaded to the contrary.

I have purposely avoided any excursion into the literature of this subject, although I may be permitted at this point to allude to a very excellent Paris thesis dealing with the matter in hand.<sup>2</sup> In this thesis are enumerated the causes which are said to in-

<sup>1</sup> According to Tilt, mammary irritation and swelling was noticed in fourteen out of five hundred women at the menopause. The breasts, he says, are swollen and painful, the nipples sore, and sometimes distil a milky or glutinous fluid. It quite frequently occurs that the first symptoms of the change of life are mistaken for pregnancy. The menstrual flow stops, the abdomen gradually enlarges, and women who have had children are convinced that they feel fetal movements; the above-mentioned changes in the breasts are noticed, there is sickness, etc. He cites interesting cases.

<sup>2</sup> Duval (R.): *De la sécrétion mammaire non puerpérale.* 4to, Paris, 1881.

6 JOHNSTON: *Occurrence of the Mammary Secretion.*

duce a secretion in the breasts of non-pregnant adult females. They may be briefly summarized as follows :

1st. Menstruation ; 2d. A tumor of the breast ; 3d. Affections of the utero-ovarian apparatus ; 4th. Mechanical or psychic stimuli independent of any material modification of the organs ; 5th. Cases have been recorded occurring after the menopause.

The author cites many interesting instances in support of these propositions.

In the first of my cases, the point from which the reflex stimulation originated is to me still uncertain ; in the second, it may fairly be assumed that the retroflexed uterus and the local conditions associated with and dependent upon it were the causes of the activity of the mammary gland and of the disturbances of function and sensation occurring at the same time.





