SPURIOUS PREGNANCY*

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A CONDITION that presents itself from time to time in the practice of obstetrics is that of spurious pregnancy or pseudocyesis. This condition, characterized by signs and symptoms that frequently simulate very closely the signs and symptoms of pregnancy, may at times give rise to extremely embarrassing situations, both to the physician and to the patient. The study of cases of this nature is very interesting and gives one a rather interesting glimpse of abnormal feminine conduct.

Spurious pregnancy is referred to by a number of terms such as: false pregnancy, phantom pregnancy, imaginary pregnancy, hysterical pregnancy, and simulated pregnancy. Although the term "feigned pregnancy" is used synonymously, its use in this respect is an ill chosen one, since it carries the connotation of malingering, or intentional deception, which is not, strictly speaking, a part of the condition under consideration. The French have coined a term to denote the condition, namely, "grosseuse nerveuse."

The literature on the subject is not very comprehensive. Probably the earliest contributions that have been identified, date from 300 B.C. Hippocrates mentions the condition and one may infer from his writings that observations at that time were rather well grounded on recognized cases in animals as well as in humans. From a rather extensive review of the literature of modern medicine the following facts regarding the published work on the subject are obtained.

Spurious pregnancy has been given considerable attention in the middle of the nineteenth century by such authors as Madden, Montgomery, and Simpson. Of all conditions presented to obstetricians and gynecologists spurious pregnancy has probably excited the least published comment. Most mention of the subject appears in the form of case reports presented at meetings of local medical societies. These cases are reported mainly as interesting examples of abnormal human behavior, or as examples of patients who should have been examined early by the physician in charge. Very few conjectures have been advanced as to the why or as to the wherefore of the condition.

On account of the nature of the condition only a few of the cases are ever seen in hospital practice. Most of the cases are seen in the office or the dispensary where the diagnosis is made before the patient reaches the supposed date of confinement. Horrocks reported a hospital case from Guy's Hospital Reports in 1884. Rosensohn reported ten cases from the antepartum service of the Lying-In Hospital in *Bulletin of Lying-In Hospital* of New York in 1922. These cases were collected over the period of one year, from 1916-1917.

Spurious pregnancy is seen in animals and several references to such cases are made in the literature. These will be considered later. Although no accurate data is at hand to verify the assumption, the condition is probably common to all

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races. At least twelve countries are represented in the literature on the subject, and the territory included all continents and was distributed from Scandinavia to South Africa.

It is my experience that in the dispensary more white patients are seen with imaginary pregnancy, than colored, although the colored attendance outnumbers the white by approximately two to one. Practically all of the cases in the literature are reported about white subjects.

There is considerable difference of opinion as to the age at which most cases appear. In most instances recorded, the patients were between 25 and 35 years of age. Simpson states that most cases are seen at the climacteric period. Montgomery thinks that it occurs most frequently at the climacteric period. The reports in the literature do not bear out the latter statement.

As a result of personal observation I believe that most of the cases occur in young individuals who, because of exposure to pregnancy and the undesirability of pregnancy, imagine themselves pregnant. These cases do not present themselves for observation early, on account of the embarrassment attending such visits to the physician, but keep their own council until they are convinced that they are, or are not pregnant. Some of these patients hasten to the sympathetic midwife or the near-by apothecary where the products of imagination may be dispelled as easily as one discards a bit of tissue.

From observations in the dispensary and from reviewing the numerous cases in the literature one may divide the cases into three general types:

First, those women in whom there is a decided fear of pregnancy or an aversion to pregnancy.

Second, women who are extremely desirous of becoming pregnant.

Third, those cases in whom pregnancy is imagined because of some functional disturbance attended by symptoms which simulate the signs or symptoms of pregnancy.

In the first class come the young individuals mentioned above. Many of these are young girls who after illicit intercourse begin to build up a sort of aura of pregnancy. All sorts of emotional conflicts go on. Minor disturbances are interpreted in the light of a prospective pregnancy with its attending shame and uncertain outcome, until the entire organism is thrown out of balance and pseudocyesis is the condition requiring treatment.

In the newly married women similar emotional disturbances often take place, though usually not as marked or as persistent.

In many cases it is extremely difficult to get to the cause of the exciting factors other than the history of some previous illicit intercourse. In two cases, seen in the obstetric dispensary within the past year, the patients were both minors in whom the history of previous

intercourse had no direct connection with the spurious pregnancy, for which they were under observation. Both of these patients had mental ages far below their ages in years.

In making inquiry as to why pregnancy was suspected it was found in each case that on admission of previous intercourse to their mothers, and the development of some presumptive sign of pregnancy, the suggestion was so strongly impressed on the patient, that each girl believed herself actually pregnant and became a full blown case of spurious pregnancy. From the analysis of the social conditions surrounding many of these patients in their homes and places of employment, I believe that many cases are developed from just such surroundings.

A brief outline of one of the cases mentioned above will be of interest here.

F. G., white, aged twenty, single, entered obstetric clinic October 6, 1927. Patient was a rather dull type with the appearance of low mental age. This was subsequently determined as nine to ten years in the neurologic clinic.

Menses started at twelve years and were regular every twenty-eight days with a moderate flow, lasting seven to eight days. Her history, which was subsequently verified, was that on July 3, 1927, she had been forcibly attacked. This attack had been made while she was away from home, against the wishes of her mother. On her return home her mother had become quite abusive and suspected pregnancy at once. The next two menstrual periods became short and scanty, and the following month she did not menstruate. At this time she was sent away from home, and she then became more or less of an outcast.

On admission to the dispensary she was thoroughly convinced of her pregnancy. She complained of nausea and vomiting existing for three weeks, hot flashes, and headaches. Her weight had increased and the abdomen was getting larger. On examination the breasts were found somewhat congested. The abdomen was somewhat enlarged. The uterus could not be felt because of the resistance of the patient and tenderness. Two weeks later examination failed to reveal any further evidence of pregnancy, but it was thought advisable to keep the patient under observation.

For some reason the patient did not return until January 4, 1928. At this time she was still of the opinion that she was pregnant. Nausea was still present though not severe. No menstruation had occurred. The abdomen was larger and the weight had increased 16 pounds since first visit. The uterus was not enlarged. Patient mentioned some indefinite movements in right side which she interpreted as fetal movements. She was told that she was not pregnant but refused to be convinced.

Two weeks later she returned with history of a slight fall a few days before, followed by some pain in side, a few cramps, and a slight bloody discharge on the day of the visit. This discharge had the appearance of a scanty menstrual flow. She was told that this was probably a menstruation and that she likely would menstruate the next month. There had been no increase in the abdomen, and the weight had diminished slightly.

Meanwhile the social condition of the patient had been benefited, and a more satisfactory adjustment of environment had been made. The patient has menstruated normally since and no longer believes herself to be pregnant.

The second type or those who are extremely desirous of becoming pregnant probably present the most extensive picture of spurious pregnancy and are most difficult to convince that their assumptions are wrong. These women are usually older and with their better knowledge of signs and symptoms of pregnancy present a more complete picture of pseudocyesis.

Oftentimes pregnancy in such patients would be of decided advantage from an economic standpoint such as the participation of children in the inheritance of an estate, or in the fixing of an amount of alimony. Often the desire to hold the love of the husband and preserve the marital state is the exciting factor. The condition is noted especially in women who have been married a number of years and are approaching the menopause, without ever having become pregnant.

In two cases that I was able to observe I found that both patients had been married before without issue. In the second marriage both wished to have children, partly because they themselves desired them and partly to convince their husbands that they were not barren. In a number of cases that I have questioned, the fear of sterility seemed to be sufficient to cause the patients to look forward eagerly to any symptom of pregnancy. Probably the greatest exciting factor in spurious pregnancy in this class of patients is the maternal instinct.

It is in this type of case that the condition is most marked and may continue to a later false labor. Many of these patients make rather elaborate preparation for delivery and the reception of the newborn child.

A case under observation a few years ago illustrated many of these features.

M. S., white, aged twenty-seven, gravida i, requested an obstetric examination to determine the duration of a supposed pregnancy. Her previous history was that of irregular menses beginning at fourteen years and remaining irregular until nineteen when some pelvic operation was done. One normal pregnancy six years ago by first husband. Following the pregnancy there was a history of a pelvic inflammatory condition.

Second marriage two years previous to my observation. Patient stated that since her pelvic distress she was afraid that she could never conceive again. Present husband very desirous of children. No contraceptives.

For four or five months she had noted enlargement of abdomen and a gain of 25 pounds in weight. Menses had been very scanty and painful. Nausea had been troublesome almost daily, with vomiting one to two times daily. Patient noted edema of hands and feet. Fetal movements felt for some time by patient. She believed that she was rather near term, four or five weeks.

When I first saw the patient she was making baby clothes. On examination the breasts showed some enlargement. The abdomen was quite large with a very thick panniculus. No abdominal mass was felt; although the patient resisted considerably and seemed to make the abdomen larger. The uterus was only slightly enlarged if at all. There was a small tender mass in the region of the left adnexa. Patient was very much put out on being told that there was no evidence of any

advanced pregnancy. Ten days later, at the regular menstrual time, she had a rather profuse menstruation with some pain. Following this all symptoms disappeared. Since that time she has had two labors at term and one miscarriage.

In the type of patients that have spurious pregnancy associated with some functional disturbance, the cessation of menstruation is probably the most common causative factor. Most of these cases are in women approaching the menopause when emotional reactions are a part of the menopause symptoms. As the periods cease or become scanty, with the increase in weight or enlargement of the abdomen that so many women experience, it is not at all unlikely that the possibility of pregnancy would suggest itself to the woman. This suggestion in the mind of one whose emotions are already in a state of unrest may easily become a child of imagination.

Numerous other disturbances of function may be the exciting factors in the production of spurious pregnancy. Endocrine disorders which have symptoms common to pregnancy sometimes give rise to the picture. Montgomery, and later Madden mention a number of disturbances such as ovarian tumors, ascites, obesity, visceroptosis, and flatus among the exciting factors of the condition. It will be noted that these disturbances occur frequently near the menopause.

It is interesting to note the prevalence of certain signs and symptoms in these cases. Although many cases simulate real pregnancy very closely, it has been pointed out by Montgomery that almost all of them give a history of some phase of the condition that does not follow the normal course of pregnancy. Some may menstruate a number of times after the supposed pregnancy is well advanced. Others may feel life at an unusually early date for a pregnancy. In many cases the long persistence of nausea and vomiting may be quite unusual.

In following through the reported cases a number of signs were studied. As might be expected disturbances of menstruation were the most common disorders. Nearly every case noted had some menstrual disturbance. Nearly every patient missed entirely one period, and over half of the patients did not menstruate as long as the supposed pregnancy existed. The cessation of menses is extremely important to the patient, and as Rosensohn indicates, often is the beginning of a "train of subsequent signs." Not infrequently scant menstruation is the menstrual disturbance encountered.

Changes in the breasts are one of the most frequent signs in instances of imaginary pregnancy. The cases in the literature are not complete enough to tabulate this feature in the symptom complex. In the great majority of cases breast changes were present. About half of these cases showed the presence of some secretion. Increased pigmentation of the areola was observed in a number of instances, but

there is always some reason for doubt about this sign as is also true in regard to vaginal mucosa discoloration.

Nausea and vomiting are present in probably as many as 80 per cent of the cases. Here again there is usually some deviation from the normal course of events. In the early cases, especially those who fear illegitimate pregnancy, nausea and vomiting may occur unusually early and are frequently unusually severe. In a number of instances the nausea and vomiting started before the menstrual period was missed. At times the disturbance becomes so severe that it requires special treatment. In these severe cases, although the gastric disturbance may be a part of some other disorder, the patient is all the more strongly convinced that she is pregnant. This is emphasized in instances where previous pregnancy has been attended by severe gastric disturbances.

Quickening is present in most of the cases in which the imaginary pregnancy lasts five months or longer. It is most frequently observed in the older individuals. This is probably true on account of the disorders that lead these women to imagine pregnancy, such as gas in the intestines, abdominal distention, tumors, and excessive fat deposits. A number of these women give a history of quickening felt long before it would be expected in normal pregnancy. The history of unusually active fetal movements is not at all uncommon.

Although discoloration of the mucous membrane is not always easily distinguished, it appears that in most cases of imaginary pregnancy that have been carefully studied, this sign was absent. Other conditions causing pelvic congestion make this sign a rather doubtful one, as it may be observed in patients who are not pregnant or in whom there is no suspected pregnancy.

In one or two instances of spurious pregnancy abnormalities of pigmentation have been noted. These were probably due to endocrine disturbances, which were responsible for the functional changes that caused the women to believe that pregnancy was present.

On observing a number of histories of imaginary pregnancy, it is noted that in a small number frequency of urination is noted. In some cases this is probably due to the nervousness of the patients, while in others it is due to pressure or irritation by tumors in the abdomen. This is certainly not a frequent symptom.

Practically all of these women suffer from mental and emotional changes. This is a part of the very condition that makes up the picture of spurious pregnancy. Although some women attribute their emotional disturbances to their supposed pregnancy, the imagination of pregnancy itself is the result of some mental reaction. Occasionally the supposition of pregnancy is the outstanding delusion in a psychosis, but these cases are not characteristic of the emotional

changes of spurious pregnancy. Some of the earlier writers regarded pseudocyesis as a monomania.

Some patients do cling to the delusion long after they have been informed that the pregnancy was only mythical. Montgomery cites one case of nine years' duration. Simpson mentions a patient, seen by Dupuytren, in which case the delusion was kept up for fourteen years.

Practically all cases in which the weight was noted showed some increase in weight. This gain was most noticeable in those cases associated with the menopause. In the case of the young woman I mentioned the increase was sixteen pounds over a period of three months.

Enlargement of the abdomen usually accompanies spurious pregnancy. In a number of cases tumors have been apparent to the examining physician. Phantom tumors do not always simulate the gravid uterus. In several instances the phantom tumors have simulated some other intraabdominal masses. The apparent masses have been caused by involuntary or voluntary rigidity of the abdominal wall, thickening of the wall, distention, by gas or fluids, or similar factors. These supposed tumors usually disappear during anesthesia or while the attention of the patient is diverted.

Naturally the positive signs of pregnancy are absent in the condition. Formerly, before modern obstetric procedures were applied to the cases presenting themselves as obstetric patients, errors in diagnosis were common. Palpation of the abdomen in supposed pregnancy would sometimes lead to the impression that fetal movements were present, when only movement of the intestines or gas within the intestines was felt. This phenomenon together with enlargement of the abdomen has confused many medical men, and has in two recorded cases been the determining sign on which laparotomy was performed.

An essay of this nature is scarcely complete without some mention of the termination of these cases. Most of the patients, when told that they are not pregnant, show considerable doubt as to the correctness of the advice of the physician. Many of these women refuse to be convinced that their pregnancy is only imaginary, and will go from one consultant to another repeatedly, apparently never quite convinced of the error of their assumption. Some patients react rather violently to the correct information and will take absurd measures to convince medical attendants that pregnancy is or has been the case. Some will feign a miscarriage as in the cases reported by Pracy, and by Ellsworth. Nielson displays a large number of small bones of birds, that a patient claimed to have passed per rectum in a case of spurious extrauterine pregnancy.

A number of cases of spurious pregnancy go on to spurious labors. When multiparae simulate labor the effect may be very convincing. By virtue of previous experience the regularity of contractions, with

all the attending agony and sounds, may be very successfully imitated. The early literature on the subject graphically describes a number of such labors.

Although the condition has been recognized for centuries, there has been little study given as to its cause. We can easily see why some women should suppose themselves to be pregnant, or why some delusions should include the supposition of pregnancy. It is not so simple, however, to explain the rather definite progression of signs and symptoms that frequently go along to make the spurious pregnancy seem real to the patient and apparent to the observer. I find that in the discussion of most of the reported cases the condition has been ascribed to hysteria. Although the statement is frequently seen that hysteria may simulate almost any condition, it is difficult to explain spurious pregnancy on that basis. A number of these cases do probably represent hysteria, but by no means do all of them do that.

Montgomery who has presented an excellent treatise on simulated pregnancy rather discourages explanation of the condition. Harvey, and later Schmitt, advanced theories which included the supposition of a close relationship between the receptivity of the brain and of the uterus. These theories would indicate that as coitus occurs, there is conceived within the brain the idea of pregnancy which is fostered as the uterus would foster the developing ovum; or "that a woman should be impregnated by the conception of a general immaterial 'idea' and become the artificer of generation."

Hofstaetter emphasizes the disturbance of endocrine function as a probable cause of the condition. Others point out its association with various mental diseases, such as, paranoia, dementia precox, epilepsy, and feeblemindness. None of these mental disturbances, however, represent per se the starting point for spurious pregnancy.

Doerfler attributes the situation to a disturbance of the patient's psyche that leads to the supposition of pregnancy and to the physical changes seen. This may be the key to the situation but for its solution one must go to more fundamental manifestations.

Throughout the lower animal world excellent examples of pseudocyesis have been observed repeatedly. Hippocrates mentioned the condition in lower animals as well as in humans.

Harvey recorded the condition in dogs. Some of these were dogs that had had intercourse without conception following, while others showed the picture without intercourse having taken place. Instances were noted where the actions of the animals simulated the actions of bitches in labor. Examples of similar behavior are frequently noted in fowls where the female has the desire to set but has no eggs to set on.

Haughton was able to produce the picture of phantom pregnancy in the female ass, and to reproduce the condition for verification.

With these instances of animal behavior in mind it is not advisable to limit too closely our presumptions as applied to the humans. It would be rather difficult to attribute phantom pregnancy in the ass to dementia precox; or in the dog to hysteria or paranoid.

Haughton speaks of a feminine attribute, the maternal instinct. Liepmann analyzes phantom pregnancy from a so-called law of the threefold substratum of the female psyche, which he says runs through the entire animal kingdom; namely, inhibition, vulnerability and pansexuality.

It seems that these two writers have certainly indicated the essentials in studying this interesting problem. The thought of a maternal instinct common to all species is certainly a logical deduction. The ancients recognized maternal instinct and the Greeks gave it a name, "storge."

In woman there is that inherent maternal instinct. Her ultimate purpose is to produce offspring. What normal woman is there who does not at some time in her life desire or speculate on having children?

In humans we have the power to think and reason. Primitive to that power lie the instincts. When by artificial restrictions such as the laws of society, physical disability or lack of contact with suitable mates, the instincts are curbed, then an emotional conflict occurs. This emotional conflict goes on between those inherent instincts and the impression one obtains from the inhibiting agency. This does not involve any process of reasoning. As examples of these curbing factors in the case of lower animals, I mention the bars of the cage, the dwarfed animal, or the different genus of the mate, as studied by Haughton.

In the human there are other influences which serve to increase the conflict. Fear, shame, remorse, desire, dislike, and a number of other impressions are founded on reason and experience. When instinct conveys to the female organism the impression that pregnancy is probable, or should be the case, then the entire organism undergoes a reaction. Thoughts of pregnancy are evolved concerning the possibility of pregnancy and the consequences resulting from that condition. These thoughts are increased by desire or dread of pregnancy, or by some functional disturbance denoting that pregnancy is probable.

There is then, on the one hand, instinct calling for pregnancy with an attempt to simulate reactions common to pregnancy. On the other hand, we have conclusions formed as a result of thoughts on the subject.

If these conclusions coincide with the promptings of instinct, the picture of pregnancy results. This picture becomes more and more fixed in the mind of the patient giving rise to a chain of signs and symptoms brought about by emotional disturbances. This continues until stronger conclusions to the contrary are derived, being induced

by the conclusions of the examining consultant, or as a result of physical manifestations ruling against pregnancy.

If on the contrary the mental conclusions are negative to the proposition presented by instinct, then the woman dismisses the possibility and looks elsewhere for the source of functional disturbances, if any are present.

I believe that the conclusions that I have just presented in regard to spurious pregnancy will apply to almost all cases of the condition. These conclusions also seem to explain the greater frequency of the condition in women of limited mental capacity, which fact I believe is true, from cases studied in the literature and from cases coming under my own observation. The relation between emotional disturbances and functional disturbances I have not attempted to explain. Possibly an understanding of this phase would give us a better key to the situation.

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