The appearance presented is not unlike a single projection of the surface of a raspberry.

Another most important modification of the results of the application of syphilitic matter depends upon the structure to which it is applied. Hunter showed that the mucous membrane was capable of the adhesive form of inflammation. Lymph may be secreted on its surface as the result of great or prolonged irritation, or effused into its structure, and into that of the submucous tissue. As a rule, however, irritation of a mucous membrane produces suppuration, and the pus-cells are thrown off from the surface, together with any irritating matter that may be mixed with it. The mucous membrane does not then become permanently thickened, nor does it ulcerate. The newly formed bioplasts carry their life up with them, and cease to be a part of the living being which produced them.

There are three ways, Hunter says, in which chancre may be produced: first, by the poison being inserted into a wound; secondly, by being applied to a non-secreting surface; and, thirdly, by being applied to a common sore. But infection of a patient's system, Hunter held, might be and often was produced by a gonorrhœa, independent of a chancre. He says the matter of a gonorrhœa will produce either a gonorrhœa, a chancre, or the lues venerea. Now there can be no doubt that Hunter in his descriptions has confounded together several different affections of the urethra, and has classed them together under the common name of gonorrhœa. That the very large majority of cases of urethral discharge do not depend either upon syphilis or upon gonorrhœa, may be concluded from the simple consideration of the great variety of causes which will produce such affections. These will be more fully considered hereafter. But if it be conceded that some forms of urethral discharge are really syphilitic, it is no easy matter always to distinguish them from those that are not. Inoculation has been supposed to furnish the means of diagnosis. How far this is the case, will be considered in the next lecture.

ON OBSTINATE SICKNESS DURING PREGNANCY.

By J. HENRY BENNET, M.D.,

Formerly Obstetric Physician to the Royal Free Hospital.

IN the various communications that have recently appeared in the *BRITISH MEDICAL JOURNAL* on obstinate sickness during pregnancy, I have looked in vain for the mention of one very important and very frequent cause of such sickness; viz., chronic inflammation of the body or of the neck of the pregnant uterus. I was the first to draw attention in Anglo-Saxon literature to this frequent cause of obstinate sickness, as far back as the year 1849, in the second edition of my work on *Uterine Inflammation*. I had become acquainted with the fact in the Paris hospitals ten or twelve years before that date, and had during all that period paid much attention to the subject in varied fields of observation. So frequently, indeed, have I found actual uterine disease, often removable by treatment, to be the cause of severe pregnancy sickness, throughout my entire active obstetric career, that I have no hesitation in saying that it may always be suspected when sickness proves unusually severe and intractable. Such being the case, no practitioner is justified in continuing to treat by medicine alone such a case of pregnancy sickness, without making a most minute and careful ocular and digital examination of the uterine organs.

Chronic inflammatory disease of the body of the uterus, or extensive inflammatory disease of the cervix, even when ulcerative, does not necessarily preclude pregnancy. Some women conceive so easily, that no morbid condition of the uterus prevents conception, although the sequelæ of such conception are often lamentable. It is a diseased organ, a piece of machinery out of gear, that has to do nine months' work, to undergo all the wonderful modifications of tissue which accompany pregnancy: is it surprising that the entire process should be one of intense suffering, and that various and numerous morbid manifestations should accompany every stage of the process? Indeed, I published twenty-six years ago, in the work alluded to, my firm conviction, a conviction which subsequent experience has only confirmed, that a considerable proportion of the morbid manifestations of the pregnant and puerperal states may be traced to the unrecognised existence in the pregnant woman of chronic inflammation of the body or of the neck of the uterus. The latter is the most frequent, because lesions of the mucous membrane are always more frequently met with in any part of the body where there is one, than parenchymatous lesions. Ulceration generally accompanies inflammation, and is of a peculiar fungoid-looking character. The granulations are large, and bleed easily on being touched: a characteristic which becomes more

and more marked as the pregnancy advances. The diseased state may spread over the enlarged cervix, or be limited to the inner region of its cavity, and be partly or entirely concealed. Thence the necessity of a very careful and accurate examination, not only digital, but ocular. The patient should be out of bed and dressed, and be examined lying in the lithotomy or dorsal position, on a couch or sofa; the pelvis elevated by one or two hard pillows; in a good light, that is, near a low window. The speculum used should be a conical bivalve, such as Coxeter's large one, which sustains the vagina, relaxed by pregnancy, and admits of expanding or opening the lips so as to see into the outlet of the cervical canal. The examination ought to be such that a grain of dust should be seen anywhere on the cervix. I am still constantly examining women who have been previously examined in bed by others in the usual English obstetric position, and have been pronounced free from disease, whereas I find well marked morbid conditions; the difference being, no doubt, the imperfect examination of my predecessors.

Chronic disease of the body of the uterus, generally localised to a limited region, is more difficult to diagnose in the gravid uterus. The diagnosis must rest on the antecedents of the patient, on the presence of dull aching constant pain in some uterine region, and on the sickness. In my own obstetric practice in former days, my patients were principally, in private life, women whom I had previously attended for uterine disease. This previous attendance was the link between us, and I was thus able to follow the sequence of events. I may incidentally mention that I found adhesion of the placenta after confinement very frequent in these cases.

When there is disease of the cervix, the discovery once made, all difficulty and danger usually cease. As soon as, under the influence of local surgical treatment, emollients, astringents, caustics, etc., the simply inflamed or inflamed and ulcerated surfaces assume a healthy hue, the intense sickness ceases; and, when they become healthy, it disappears, or assumes its usual mild form. I am sure that I have saved scores of pregnancies and children's lives by the above treatment. I have often succeeded in women who had had half a dozen abortions previously to my appearance in the field.

In chronic inflammation of the body of the uterus, it is more difficult to arrest the sickness or to prevent abortion. Still I have succeeded with the assistance of the usual antiphlogistic means, hip-baths, emollient injections, and external applications, leeches externally and even internally to the cervix in the early period of pregnancy. I learnt accidentally long ago that leeches might be applied without risk—indeed, with positive advantage in some cases—to the uterine neck in early pregnancy. I overlooked the existence of pregnancy in several instances where it “ought not” to have existed, and only found out the mistake later, after seeing urgent symptoms of uterine irritation subside under the influence of leeching.

It is now more than a quarter of a century since I opened out this wide and important field of observation in the diseases of pregnancy and of the puerperal state, and I have often wondered that so little has been done in it since I did so.

Grosvenor Street, June 1875.

TREATMENT OF OBSTINATE VOMITING IN PREGNANCY.

By E. COPEMAN, M.D., F.R.C.P.,

Senior Physician to the Norfolk and Norwich Hospital; President of the British Medical Association.

I WAS much pleased with the remarks made upon my late communication by Dr. Graily Hewitt, whose opinions on matters connected with obstetrics, I feel sure, all will consider worthy of special attention. Since I read his paper in the last number of our *JOURNAL*, a case has been brought to my recollection which adds some confirmation to his views as to the obstinate sickness occurring in pregnancy being due to displacements or flexions of the uterus; and, although I do not yet believe that such flexions are the *only conditions* of the uterus which give rise to the vomiting, yet I quote a few remarks from my case-book to show how probable it is that they are, at all events, *amongst* the causes of this troublesome and sometimes dangerous complication of pregnancy.

In March 1865, I was called to visit a lady in the country in consultation, on account of severe and most distressing vomiting during early pregnancy. About two years before, this lady consulted me on account of an almost constant loss from the uterus, which had gone on for about a year. She did not look much out of health, and had had several children; but the continued loss made her feel very languid and good for nothing. Some months before, she had consulted Mr.

Spencer Wells, who applied nitrate of silver to the os uteri once with temporary benefit. I gave her mild bitter tonics, and applied nitrate of silver to the os uteri several times. She improved very much in health; and, on the last examination, I thought local treatment no longer necessary. There had been congestion and excoriation of the cervix, and slight ulceration in the canal; but this had all disappeared, and there was less tendency to prolapsus. On one occasion, the day after the caustic had been applied, a cluster of bodies of the size of very small currants came away—probably small polypoid growths, which had given rise to the hæmorrhage. When I visited her in 1865, I found that, in addition to the persistent vomiting, which had brought her into a state of dangerous starvation, she was suffering from pains about the pelvis and back, with forcing downwards, indicating the probability of abortion, and leading me to make a vaginal examination. On doing so, I detected a decided *retroversion* of the uterus, which I rectified, and prescribed oxalate of cerium. I soon afterwards learned that the sickness had ceased, and that she was going on quite well. My opinion at that time was, that *the backache, pelvic and bearing-down pains, were relieved by putting the uterus into a natural position; and that the sickness was stopped by the oxalate of cerium;* but, from what Dr. G. Hewitt says, it is very probable that the retroflexion was the cause of all the trouble, and its rectification the cure.

On referring to the *Handbuch der Geburtskunde* (published at Berlin in 1843) of Busch and Moser—a work which well deserves being translated into our own language, especially if it have undergone any recent edition—I find displacements of the uterus mentioned as one of the causes of vomiting in pregnancy: “Die dritte Art des Erbrechens wird durch organische oder mechanische Krankhafte zu Stande erzeugt; z. B. durch eine übermässige Ausdehnung der Gebärmutter, durch eine anormale Lage derselben,” etc.

I hope ere long to be able to communicate more at length upon this interesting subject.

ON A CASE OF UNUSUALLY RAPID ACTION OF THE HEART.*

By ROBERT FARQUHARSON, M.D.,

Lecturer on Materia Medica at St. Mary's Hospital, etc.

CASES of unusually rapid action of the heart are still so rare, and their pathology is so obscure, that little apology seems necessary for bringing a small contribution to the subject under the notice of the profession. The instance of this curious condition which I am now about to describe occurred several years ago in military practice; and I am induced to place it on record, because, as we shall presently see, the material necessary for the construction of any reasonable theory is at present wonderfully scanty in proportion to the interest of the many questions involved.

Private J. Fox, aged 28, service eight years, was admitted into the regimental hospital of the Coldstream Guards on January 2nd, 1864. Reference to his medical history-sheet did not show any previous entry; but, two years after enlistment, and consequently prior to the issue of these returns, he was fourteen days under treatment for acute rheumatism, of which no special record has been preserved. During some time past, he had been short-winded on exertion, and had gone upstairs with difficulty; and, twelve months ago, he had a slight attack of palpitation, but no recurrence of this symptom was experienced until Jan. 1st in the forenoon, when he was suddenly and violently attacked on his return from a field-day. His heart beat very heavily all night, and this morning he felt so ill and unfit for duty, that he at once reported himself sick. On admission, it was noted “that he looked pale and anxious; the breathing was much hurried; the pulse was full, bounding, and thrilling, 116; and a loud double *bruit* was heard at the base of the heart and down the sternum; heart's impulse forcible and heaving, and dulness increased”. A belladonna plaster was applied to the side, and a mixture, containing nitrate of potash and tincture of veratria, ordered to be taken every four hours.

From this date, he took various remedies at various times; but gradual increase of palpitation led, on February 11th, to his being placed on fifteen minims of tincture of digitalis, with an equal quantity of tincture of iron, thrice a day; and next day the pulse had fallen to 80. Things went on satisfactorily until March 8th, when, during the usual morning visit, my attention was directed to the very alarming symptoms which the patient presented, and which seemed to threaten a rapidly fatal result. He was sitting up in bed, breathing with great effort; his countenance pale and bedewed with clammy sweat; and, on placing

my finger on his pulse, I was able, although with difficulty, to count 216 pulsations in the minute. On listening to the heart itself, the cardiac systoles followed one another with so great rapidity, that no *bruit* could be made out; but the first sound was distinctly and clearly audible. Whilst feeling his pulse at 11.45, the heart suddenly stopped for several beats, then gave three or four forcible and irregular pulsations, and, on resuming its action, was found to have fallen to 104. He now expressed himself as feeling much relieved; the countenance lost its ghastly pallor, and he was able to tell me that the palpitation first began at 9 A.M., and that he had suffered in a similar way, but much less severely, several times since admission. Next day, he had another, but much slighter, attack, and, three days later, he was invalided the service.

It will be remembered that, in 1867, Dr. Cotton published in the BRITISH MEDICAL JOURNAL a case of this nature; and, as this was probably the first on record, he may justly lay claim to priority in bringing the subject under the notice of the profession. His patient was a middle-aged man, who was seized on two occasions, at an interval of three years, with dyspnoea and faintness, and a pulse rate of 230, recovery taking place under treatment, one result of which was the expulsion of a tapeworm. The pulse here was regular, but uncountable at the wrist, and no indication of valvular disease could be detected.

Sir T. Watson, in a letter to Dr. Cotton, refers to a case in which the pulse on four occasions ran up to 216, with great anxiety and general distress, passing off suddenly in two or three days. In the fourth attack, the patient died, and a large flabby heart was the only morbid appearance observed. Dr. Bowles of Folkestone records, in the BRITISH MEDICAL JOURNAL of July 20th, 1867, the cases of two ladies, in the first of which the surprising pulse rate of 250 was reached, and in the second over 200. A case of Dr. Broadbent's is reported about the same time, where 168 was the number attained; and, in July 1869, Dr. Cotton sums up the evidence and records another instance where the heart's action exceeded 200 beats.

In a recent number of the *Lancet* (February 6th, 1875), Dr. Brisbane has published a case of mitral disease, where the pulse suddenly mounted up to 185, and continued at that elevation during several days; and Dr. Willett has mentioned to me an unpublished case, which first came under his notice five years ago, where a middle-aged woman was seized with most extremely rapid and irregular action of the heart after a sudden shock. Dr. Richardson, who saw her at this time, tells me that there was great dyspnoea and distress, and that the pulse ranged from 180 to 200, being hardly countable; and, in a letter received from Dr. Willett, describing the present condition of this patient, he says the pulse is uncountable and irregular, as well as intermitting. It stops suddenly and at irregular intervals, a bad attack lasting some days; but there is no indication of valvular disease.

This, then, is a tolerably accurate list of the cases of abnormally rapid cardiac action recorded in recent literature; and, on studying them attentively, with the view of discovering any marked differences or points of similarity between them, I find they may be, in the first place, divided into two classes: 1. Those in which valvular disease existed; and 2. Those in which the palpitation might fairly be assumed to be only functional in character. To the first belong Dr. Brisbane's case and my own, where mitral and aortic disease were respectively diagnosed; but, in the other six, no common explanation throws any light on the symptoms, two of the eight patients being the subjects of albuminuria, three being rheumatic and dyspeptic, two the subjects of dilated and gradually weakened hearts, and one having been proved by the results of treatment to have acted the part of host to a large tapeworm.

Another element of distinction is found in this: that, in a certain number of cases, the heart resumed its normal functions suddenly, whilst in others the unusually rapid action became gradually diminished. Accident enabled me to advance perhaps a step beyond other observers, by affording me the opportunity of feeling the pulse at the precise moment when the change took place; for it will be remembered that, whilst my finger was actually on my patient's wrist, the number of pulsations suddenly fell from 210 to 104, the heart recovering itself after a somewhat lengthened pause and several irregular contractions.

Having now summed up the principal facts connected with our subject, we find ourselves in a position to go a step further, and inquire in how far physiology can assist us in unravelling the difficulties which naturally arise; and let us first consider the explanations which have been brought forward by those who have previously written on the subject. Dr. Cotton is inclined to believe that in such cases the heart is led to contract too rapidly, on account of a condition of over-sensitiveness, such as we find in various nervous affections or in simple nervous palpitation; or, on the other hand, the blood may be irritating in

* Read before the Medical Society of London.