Two Lectures

INTRODUCTORY TO THE CLINICAL COURSE ON THE DISEASES OF WOMEN AND CHILDREN.

DELIVERED AT THE MIDDLESEX HOSPITAL.

BY

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LECTURE II.

I PASS NOW to some general considerations concerning the diseases of women. In the human female, the entire system may be said to be more subservient to the function of reproduction than it is in the male. By this, I do not mean that the sexual passion is stronger in women than in men. The idea I would convey to you is, that the more important part which the woman bears in the reproduction and rearing of offspring requires more extensive adaptation of means to carry out the purposes required, and her system is therefore laid under heavier contribution to this end. Beyond the act of impregnation, the man has little to do with the production and fostering of his offspring; but to the woman belong all those complex functions connected with gestation, parturition, and the subsequent duties of lactation and nursing. The interests and duties of maternity are in the mother paramount to all others, and her corporeal structure and mental characteristics are in strict conformity with what in these respects is required of her.

In women, during the reproductive period of life, the body is less firmly built than in men, and not so capable of physical exertion; all the tissues are softer and more pliant; the shoulders are narrower; but the pelvis is broader, its cavity wider, and its walls smoother, to facilitate parturition. The chest and lungs are smaller in their entire dimensions; and a woman breathes from the first more by the upper part of the chest, and thus incurs less discomfort when the increase in size of the gravid uterus pushes up the diaphragm, and impinges on the inferior boundary of the thorax. There is a greater activity of the circulation; the pulse is quicker; the arteries bear a larger proportionate size to the veins in the female than in the male; and the capillary system is more developed. We see evidence of this in the brighter colour of the skin, its greater clearness and transparency, and the readiness with which the colour is heightened by exercise or blushing.

Closely in relation to the activity of the vessels stands a most susceptible nervous system. Women are far more affected by all nervous stimuli than men are. There is a greater development of the affections and emotions, and a most acute sensibility to all impressions.

It has been noticed, moreover, that women possess a greater vital tenacity. They more readily recover from injuries, and rally more speedily from acute diseases or loss of blood.

As a rule, it may be stated that women approach in organisation nearer to children than to men; and

we see an obvious reason why this should be so. The relation which the woman bears to nutrition and growth very closely approximates to that of the child. The child, besides providing for its waste of tissues, has also to provide the materials for further growth; and the woman, in like manner, besides carrying on the nutrition of corporeal parts already existing, requires such an economy as can provide for a process of development within her body even more rapid and wonderful than that which takes place in the growth of young children.

The development and growth of the foetus in utero has excited the admiration and wonder of physiologists in all time, and is certainly among the greatest marvels of nature.

In the short space of nine months—the period of utero-gestation in the human species—it has been calculated that the uterus, which measures in length, in the unimpregnated condition, not more than three inches, attains the measurement of from eleven to thirteen inches at the full period of pregnancy. Its superficial measurement before pregnancy being not more than perhaps sixteen square inches, at term is as much as 339 square inches. The uterine cavity in the virgin state not having a capacity for more than two fluid-drachms, enlarges so that it will contain ten to fifteen fluid-pounds. The weight of the uterus itself being, in the virgin, not much more than one ounce, increases during pregnancy to twenty or even forty ounces; and the contents of the womb, from being nothing more than a little mucus before impregnation, average when gestation is completed from 100 to 150 ounces.

But this is not all; the full period of pregnancy having arrived, in the course of a few hours the contents of the uterus are expelled by a remarkable combination of muscular powers. The uterus itself collapses and contracts in all its dimensions, and a large quantity of that blood which has been employed in affording nourishment to the organ and its contents, is thrown back upon the maternal circulation. The gravid womb, being composed of innumerable bundles of unstripped muscular fibres, now finds its function at an end; and a retrograde metamorphosis commences, by which the whole muscular substance is rapidly converted into fat, and then absorbed into the circulation. The uterus in this way undergoes a diminution to a size nearly equal to that which it possessed before the occurrence of pregnancy.

Here again we see occasion in the female system for great activity in the functions of secretion and excretion; the glandular organs are largely developed, and it well deserves remark that the period of lactation commences almost simultaneously with the influx of blood and the products of absorption to the maternal circulation. An outlet is thus established through the breasts for the elimination of those materials which might act injuriously on the system, but are thus made to answer an useful purpose in the nourishment of the offspring.

Now, on account of these peculiarities in the frame of women, we find certain characters impressed on all the diseases by which they are affected. Very much as in young children, acute diseases run a more rapid course than in men, and there is a greater tendency to those diseases which are characterised by vascular excitement. Inflammatory affections, however, generally bear a more

asthenic type, and vascular excitement is likely to be of more fleeting character. But, perhaps, the most remarkable feature in diseases of women is that, whether acute or chronic, they are almost invariably complicated with some derangement of the function of innervation. Wherever the process of nutrition is carried on with great activity, there is exaltation of the function of innervation; and in woman the sympathetic nervous derangements educed by a slight deviation from health in some single organs are so numerous and complex that they may entirely mask the real ailment, or, as in the various phases of hysteria, be the only discernible symptoms.

To some of the morbid affections which are common to the two sexes, we find a much greater proclivity in women than in men. Nearly three times as many women as men die annually of cancer. The explanation of this is probably to be found in the greater preponderance of the glandular element in women, which has previously been alluded to. Cancer is a disease which especially affects glandular structures; and in females we have glandular organs highly developed, and performing most important functions in the economy, which exist only in a rudimentary form in men. The breasts and uterus are by far the most frequent seats of cancer in women; and both are glandular organs, endowed with great functional activity during the whole reproductive period of life.

To some diseases women are less liable than men. From Mr. Hodgson's work on *Diseases of the Arteries and Veins*, we learn that aneurism occurs eight times oftener in men than women; and, taking the whole range of pathology, females are understood to be liable to diseases of a less fatal character than males.

The customary habits of life of women in the various grades of society predispose them to certain irregularities of health common to the sex. As a rule, women lead more sedentary lives than men; they have less out-door exercise, and are thus less exposed to the beneficial influences of air and light. Their mode of dress follows rather the caprices of fashion than what conduces to utility and comfort; and the tight-lacing so commonly practised, but never admitted, and the heavy weight of garments suspended from the waist, have directly injurious effects on the general health. All these peculiarities predispose to congestion of the pelvic organs, hæmorrhoids, and varicose veins of the lower limbs, which are common affections in women at all ages.

It can scarcely excite surprise that injuries and disease often follow the processes of gestation and parturition, and that lesions resulting from these should frequently be found to exist in the organs chiefly concerned long after these processes are completed. The mechanism by which the contents of the gravid uterus are expelled at the time of labour is arranged with wonderful precision, and each successive step shows a remarkable adaptation of means to the end required. But the very accuracy and precision of the various steps in the process become elements of danger if derangement occur; and then the great power which the uterus employs in the expulsion of the fœtus, the forcible dilatation to which the genital passages are subject, and the pressure exerted on the maternal structures as labour advances, may become the means of inflicting serious injury on the organs concerned.

The immediate results of parturition belong ne-

cessarily to the general course of midwifery lectures, and are included under the head of *puerperal* diseases; but we shall find, as we pursue our investigations into the various forms of disease of the reproductive organs incident to the unimpregnated female, that the origin of a very large proportion can be distinctly traced back to some previous labour or abortion, the results of which may have lasted months or even years after the receipt of the original injury.

Thus produced, we are often able to trace the various forms of chronic inflammation of the uterus; the results of inflammation of the pelvic cellular tissue and uterine appendages; and that singular form of enlargement of the uterus connected with its defective involution after delivery, which has been called *subinvolution of the uterus*.

But, in women who have not borne children, or who are not pregnant, the reproductive organs are not idle. The performance of certain functions is required of them during the whole reproductive period of life. It is now pretty clearly established that at the time of each catamenial period one or more of the vesicles of De Graaf arrive at maturity in the ovary, and burst through the coats of that organ to throw their contents into the extremity of the Fallopian tube. This process, which has been termed *spontaneous ovulation*, takes place in all healthy women. The process becoming perverted produces various diseases, some of them of very grave character. Those immense cysts found in diseased ovaria, and sometimes occurring singly, but more frequently in numbers agglomerated together so as to form one large mass, are believed to be formed out of those small Graafian vesicles which in the healthy ovary are undergoing slow development, but under normal conditions do not attain a size much larger than a pin's head.

Accompanying the periodical maturation of these vesicles, is an intense congestion of the uterus and its appendages. The vessels of the uterus, ovaries, Fallopian tubes, and, indeed, of all the pelvic organs, become turgid with blood, and the abdomen itself becomes fuller. The result of this congestion is the production of the catamenial discharge, which is at length secreted from the mucous membrane lining the Fallopian tubes and uterus, and which escapes from the vagina during the continuance of the menstrual period. The reason for the occurrence of the menstrual flux in women is not well understood; but it is somewhat curious that upon the proper performance of a function, which appears as a penalty exacted only from the female sex, are made to depend, not only the maintenance of their general health, but also that grace and beauty which are the especial attributes of women. If, in the unimpregnated female, the catamenia become too sparing or are suppressed, a long train of morbid symptoms are likely to exhibit themselves; and the consequent derangements not only affect the corporeal well-being, but may act also deleteriously on the mind. Commonly, with functional suppression of menstruation, appear an unusual pallor and sallowness of countenance, an anæmic condition of the mucous membranes, and various other indications of impaired health. With too profuse a catamenial flow we have all the effects of loss of blood; and, if the performance of the menstrual function be attended with pain, as in cases of dysmenorrhœa, it acts injuriously

in many ways. Probably, sterility is the consequence; and, besides this, the patient may be obliged to keep her bed for two or three days in each month; the endurance of pain depresses the vital powers, and she looks forward to each approaching period with anxiety and distress. The persistence of dysmenorrhœa seems also to predispose to uterine disease of a more severe and fatal character. In Dr. Lever's volume on *Diseases of the Uterus*, it appears from collected statistics that upwards of fifty-four per cent. of women affected by carcinoma uteri had suffered previously from dysmenorrhœa.

When organic disease of any description has already invaded the uterus or its appendages, the symptoms usually undergo aggravation during the occurrence of the menstrual periods.

At the commencement of menstruation, when the girl merges into the woman, and at its decline, when the power of reproduction is about to cease, there seems a more than usual proclivity to the development of morbid affections; just as in children at the periods of dentition, these are critical periods of life, and if the seeds of disease be present in any form of predisposition, morbid action readily establishes itself.

[To be continued.]

Illustrations OF HOSPITAL PRACTICE: METROPOLITAN AND PROVINCIAL.

ST. MARY'S HOSPITAL.

CASES OF AN UNCOMMON FORM OF INFLAMMATION.

Under the care of C. HANDFIELD JONES, M.B., F.R.S.

CASE I. E. G., aged 30, was admitted as an out-patient on July 7th. She had been ill fourteen days. She had pain in the left leg from the top of the calf downwards, compared to that which might be produced by a dog gnawing the bone. She had no rest at night. Skin cool; pulse feeble; tongue whitely coated. Very little could be discovered amiss in the leg. She had rheumatic fever five years ago, and rheumatism in the shoulder one month ago.

R Potassii iodidi gr. ij; tincturæ cinchonæ ʒj; decocti cinchonæ ʒj. M. Fiat haustus ter die sumendus.

R Linim. saponis ʒij; tinct. aconiti ʒj. M. Fiat linimentum cruri applicandum.

July 11th. The left leg is much swollen, very tender and painful; the veins are full. The calf is cool, not tense; it seems as if the distending cause were deep seated below the muscles. Much sweating.

R Potassii iodidi gr. vj; infusi chiretæ ʒj. M. Fiat haustus ter die sumendus.

July 14th. The leg is rather more swollen, much so about the ankle and foot. Surface cool; pain great; bowels confined. Ten leeches were applied to the leg, and white mixture was ordered to be taken twice a day.

July 23rd. She has been an in-patient now some days, taking effervescent saline mixture and compound soap pill every night. The leg is in much the same state, swollen to some extent, and painful; it is enveloped in a poultice. She was ordered to have hydrargyrum cum cretâ and Dover's powder every night.

July 30th. The mouth is moderately sore. She has not quite so much pain in the leg; all the posterior part

of the calf is soft and painless; but there is pain and swelling in the course of the fibula at the upper third, and pain about the ankle, with notable puffy swelling. The foot cannot be flexed. The poultice is very comfortable.

Aug. 10th. She was ordered to have gr. iij of iodide of potassium in compound infusion of gentian three times a day.

Aug. 17th. The swelling of the leg has subsided; there is great tenderness about the upper part of the fibula; ankle stiffish, and the adjacent foot rather swollen.

Sept. 9th. She is doing well, but cannot bear her weight on the leg. The ankle is still puffy.

Sept. 19th. She was made an out-patient again, in about the same state as at the last report.

R Potassii iodidi gr. iij; tinct. cinchon. ʒj; infusi cascarillæ ʒi. M. Fiat haustus ter die sumendus.

Oct. 17th. She has been fourteen days in the country. The leg is much better, but she cannot bend her foot as she used. She has most pain in walking. There is some pain and œdema just behind the outer malleolus. She suffers with faint sensations and hot flushes seven or eight times a day. The medicine was repeated, and a blister was placed behind the ankle. After this she ceased to attend.

REMARKS. The prominent features of this case were protracted, subacute, non-suppurative inflammation, attended with severe pain, and little influenced by remedies. Two surgeons of great experience, who saw the case at the time when the symptoms were at their height, had no doubt that abscess was forming. It seemed probable that periostitis existed; but, if so, it is rather remarkable that iodide of potassium was so unavailing.

CASE II. S. J., aged 28, female, was admitted August 22nd, having been ill eighteen days. The right forearm is considerably swollen, and pits slightly; the hand and fingers are swollen, but not hot. At the inside of the elbow, there is an inflamed, red, ill defined, specially tender swelling; above this, the limb is natural. There are no distended veins on the forearm. She has considerable pain all over the forearm, except when it gets numb occasionally in all the fingers, which relieves it awhile. The pain causes vomiting. Skin cool; pulse weak; tongue coated; bowels open; urine very dark and red. She feels thirsty and faint. She has no idea what brought her illness on. At first, she was seized with violent pain all down the right side from the shoulder to the foot; the arm was painful, and ached, but did not swell for three days. Ten leeches were applied to the right elbow, and saline mixture with nitrate of potass and chloric ether was given every three hours.

Aug. 27th. The leeches were repeated on the 25th; but the pain continues very severe. She was ordered to have gr. v of iodide of potassium three times a day; and a poppy fomentation.

Sept. 1st. She was better last night, after taking ten grains of Dover's powder. The arm is still much swollen; the chief swelling and pain is about the elbow, at the two condyles. She obtains much relief from steeping the arm repeatedly in hot water. Pulse exceedingly feeble.

Sept. 5th. She was ordered four grains of hydrargyrum cum cretâ and half a grain of opium twice a day.

Sept. 8th. The pain unrelieved; it shoots up to shoulder. Arm much swollen; urine pale. The pills were ordered to be repeated every night, and an ounce of quina mixture to be taken three times a day.

Sept. 9th. She was made an out-patient.

Sept. 14th. The arm has been kept enveloped in a bandage wet with strong lead lotion. She is certainly better; the hand and lower part of the arm are no longer swollen, but shrunken and wrinkled; the elbow is still swollen. She had till last night very much pain in the