

The Journal of Obstetrics and Gynæcology of the British Empire

VOL. XXI.

MARCH, 1912.

No. 3.

Classification in Gynæcology.

By W. E. FOTHERGILL, M.A., B.Sc., M.D.

It is probable that the more one knows about a subject the less one troubles about its divisions and subdivisions. A classification is like a map, in that it becomes less and less necessary as the country it records grows more and more familiar. Thus, to the practical gynæcologist, the classification of the subject is a matter of minor interest; but it is of great importance alike to the teacher and to the student. Classification marks the transition of any subject of enquiry from being a mere collection of observations and theories into being a science. Indeed a science is born when a subject of study becomes sufficiently well known to admit of the logical and orderly arrangement of its details. If this test is admitted, gynæcology as a science is very young, and it might even be maintained that it has not yet reached the scientific stage. As an art it has, of course, reached a very high level.

The first attempts to give an orderly account of the diseases of women in this country seem to have been made during the later third of the 19th century. Thus the third edition of West's lectures, published in 1864, and the third edition of Graily Hewitt's book, published in 1872, both show traces of an arrangement into diseases of the vulva, vagina, uterus and other organs. In 1877 Lawson Tait published a small book with a definite anatomical classification, and the same arrangement was made by Barnes, whose second edition appeared in 1878. From this date until the present time nearly all the books which have dealt with the diseases of women have been arranged, as regards their main divisions, upon the anatomical basis.

The object of this paper is to examine the nature and results of this classification and to find out if it is the best that can be made now, as it doubtless was when it was introduced.

To quote the words of two recognized logicians, Fowler says: "A scientific classification may be defined as a series of divisions, so arranged as best to facilitate the complete and separate study of the several groups which are the results of the divisions, as well as of the entire subject under investigation." And J. S. Mill says: "The

general problem of classification in reference to scientific purposes may be stated as follows: To provide that things shall be thought of in such groups, and those groups in such an order as will best conduce to the remembrance and to the ascertainment of their laws."

Does the anatomical classification now in use "best facilitate" the study of gynæcology? and does it "best conduce to the remembrance and to the ascertainment of its laws?" Fowler says that an artificial system is one which selects some point of difference amongst the objects to be classified, and makes this one point the basis of its classification. "Though of little use, except as a preliminary effort, for the purposes of science, an artificial system possesses one great advantage. As it bases its divisions, where possible, on one property, and that generally something which at once strikes the eye, it is peculiarly easy of application and can be much more easily learnt than a natural system." This accounts, no doubt, for the continued popularity of the anatomical system in gynæcology, which selects one point of difference, namely, place, and forms its main divisions on this one basis. It may have had its use as "a preliminary effort." But unfortunately it is not only an artificial classification, but a bad one of its kind, and it has often been made even worse by faulty application. For a number of conditions which are not diseases peculiar to women are often brought in; as, for instance, the various skin diseases described under the headings "vulva" and "mons veneris." Again, affections of the rectum, bladder and urethra are often included. It is quite right for the gynæcologist to treat them; but why drag them in when trying to give a scientific description of diseases of the female reproductive organs?

Symptoms are often made into diseases; for example, *pruritus*, and various neuroses. Conditions are sometimes put in the wrong divisions. Thus cystocele and rectocele are often called diseases of the vagina, prolapse and retroversion being put amongst diseases of the uterus. Strictly speaking, they are all abnormalities of the pelvic connective-tissue. The above are all avoidable errors in the application of the system of division. But the system itself is responsible for splitting up diseases. Gonorrhœa, for example, is one disease. But in books it is described under several headings, such as vulva, urethra, vagina, cervix, uterus, tubes and ovaries; and facts which should be together in one place are scattered abroad. A further result is that local pathological processes are made into separate diseases with names such as vaginitis, endo-cervicitis, metritis, endometritis, parametritis, perimetritis, salpingitis and ovaritis. These are described each with its symptoms, signs, diagnosis, prognosis and treatment. Most of them never occur as primary conditions. Ovaritis, for example, is always secondary to infective trouble somewhere else; but the word is constantly used as the name of a disease. The same is true of most of the kindred words.

“It is a dull and obtuse mind,” said Calvin, “which divides in order to distinguish; but it is a still worse which distinguishes in order to divide.” The older gynæcological writers may not have distinguished between ovaritis and salpingitis with the conscious intention of dividing them; but their writings have effectively separated these processes in the minds of students and medical men of the present day.

Nor can the use of anatomical main divisions be said to be successful in practice; for senior students and young graduates constantly remark that, while they can make useful progress in medicine, surgery and midwifery, they are in despair about gynæcology. The subject, however, presents no unique difficulty. It is badly taught simply because writers and teachers persist in using the anatomical arrangement. Interest, intellect and industry are not wanting, the method alone is in fault. How can the student realize the connection between vulvitis and salpingitis when they are treated as distinct diseases separated by hundreds of pages in text-books and by the lapse of weeks in the lecture-room? How can he avoid regarding “ovaritis” as a disease when it is described as one? How can he escape the conclusion that prolapse is a disease of the uterus when it is placed under that heading?

Various other artificial groupings might be tried in attempting to improve upon the anatomical system, but what is required is natural arrangement. Fowler says: “A natural classification aims at classifying objects according to the whole of their resemblances and differences, so far as these are recognized by the science in whose service the classification is made. But amongst these resemblances and differences some *are found to be invariably attended by a number of others*, and consequently these, as the more important, are selected as the characters by which to discriminate the higher divisions of the series, the less important characters being, throughout the whole series, subordinate to the more important.”

Now, what are those resemblances between diseases which are to be invariably attended by a number of other resemblances, and which therefore should be selected as the characters by which to discriminate the higher divisions of a classification? The word “cancerous” at once calls to mind a number of resemblances between all cases of cancer; but the term “disease of the uterus” does not suggest any resemblances between diseases of the uterus except that of place. The word “infective” conveys a number of facts concerning all cases of infection; but the word “vagina” tells nothing about any case of vaginal disease except the site of the lesion. In short, the knowledge that a condition affects the broad ligament, the uterus or the ovary conveys much less information than the knowledge that the condition is an injury, a tumour or a malformation. In general terms, the important feature of a disease is not its site, but the way in which it

departs from health, namely, its pathology. The word pathology must not be taken in its narrow sense of morbid anatomy, but must include function as well as structure, morbid processes as well as lesions.

If it is granted that the pathology of a disease is its most important feature, does it not follow that the main divisions of a natural classification of diseases should be based upon pathological resemblances and differences; the minor features, such as the site of lesions, being utilized in later or subdivisions of the classification?

Attempts to bring into use a natural classification of the diseases of women with its main divisions based on pathology have been made, so far as the writer is aware, by four authors in this country—D. Berry Hart, J. W. Ballantyne, W. Blair Bell and himself.

In 1893 Berry Hart read before the Edinburgh Obstetric Society a paper on "The Pathological Classification of Diseases of Women, with a plea for the revision of current views." It appears in the *Transactions* of the Society, vol. xix, and was also published in the second volume of the *Edinburgh Hospital Reports* (1894). He used eleven headings as follows:—

1. Congestive (vascular ruptures included).
2. Hypertrophy.
3. Atrophy.
4. Traumatism.
5. Simple inflammations.
6. Micro-organismal.
7. Herniæ (includes prolapse).
8. New growths.
9. Displacements (inversion only).
10. Developmental errors.
11. Neuroses.

"Simple inflammations," Hart described as "alleged simple non-specific inflammatory conditions?" with a question mark. These he introduced in a perfunctory manner. "Under this heading," he says, "the important question arises as to whether we ever have really inflammation apart from an infective cause, *i.e.*, as the result of mere vasomotor and other vascular changes. I do not believe we have." This was written in 1893, and by this time probably everyone agrees with Hart that we do not have to deal with such "simple inflammations." "Neuroses" should doubtless be regarded as diseases of the nervous system and not of the female reproductive organs.

In 1905, Ballantyne published his *Essentials of Gynæcology*, and his headings were ten in number:—

1. Inflammations and infections.
2. Neoplasms.
3. Displacements.

4. Traumatic states and results.
5. Malformations.
6. Hypertrophic and atrophic states.
7. Extrauterine pregnancy and hæmatocele.
8. Menstrual anomalies.
9. Sterility.
10. Nervous affections.

It is unnatural to put hypertrophies and atrophies together, because they are opposite in kind. Extrauterine pregnancy is midwifery. Menstrual anomalies and sterility are symptoms and nervous affections are disorders of the nervous system, as already mentioned.

In Blair Bell's *Principles of Gynæcology* (1910) the headings are again ten in number:—

- | | | |
|------|----|--|
| | I. | 1. Congenital derangements of the normal anatomical conditions (malformations). |
| | | 2. Acquired derangements of the normal anatomical conditions (injuries). |
| | | 3. Acquired derangements of the normal anatomical conditions (displacements). |
| II. | | 4. Disorders of the normal physiological conditions in relation to menstruation. |
| | | 5. Disorders of the normal physiological conditions in relation to conception. |
| III. | | 6. Infective and parasitic diseases of the genital tract. |
| IV. | | 7. Retention and effusion cysts of the genital tract. |
| | | 8. Innocent neoplasms of the genital tract. |
| | | 9. Malignant neoplasms of the genital tract. |
| | | 10. Allied morbid conditions. |

These fall into four very large groups: for 1, 2 and 3 are "anatomical" conditions; 4 and 5 are "physiological," and 7, 8 and 9 are "tumours."

"Disorders in relation to menstruation," like Ballantyne's "menstrual anomalies," deals with symptoms and not with primary conditions. "Disorders in relation to conception" is midwifery. Various conditions which are not primary disorders of the female reproductive organs are included under "allied morbid conditions." Thus Ballantyne's and Blair Bell's arrangements are not quite faithful to their main basis of division, and they both poach on obstetric and other ground. Apart from his group of "neuroses," Hart's plan is free from these defects, but it suffers, with the others, from the fact that the student cannot easily keep in mind so many as ten groups.

For some years the writer has been using six main divisions, both in clinical teaching and in his systematic work.* They were

* *Manual of Diseases of Women.* Wm. Green & Sons, 1910.

suggested by the arrangement of specimens introduced by Professor Lorrain Smith into the Pathological Museum of the University of Manchester, and thus have the sanction of professional pathologists.

They are :—

- I. Developmental errors { (a) congenital.
- II. Vascular changes. { (b) at puberty.
- III. Mechanical conditions.
- IV. Results of infection. { overgrowths.
- V. Progressive conditions { cysts.
- VI. Retrogressive conditions. { new growths.

I. "Developmental errors" must, for gynæcological purposes, contain two sub-groups. For the reproductive organs have two phases of development—one embryonic and fetal, the other occupying the years immediately before and after puberty.

II. "Vascular changes" includes active and passive hyperæmia as recognized at first by symptoms, but, later, by hypertrophy and fibrosis respectively. This group also includes varicosity of the pelvic veins and hæmorrhage into the pelvic organs, connective-tissue and peritoneal cavity.

III. "Mechanical lesions" is a large and obvious group containing injuries, displacements and herniæ.

IV. "Results of infection" is a main division which should be subdivided according to the causal organism. In this group the few cases of primary pelvic parasitic disease can be included without gross impropriety.

V. "Progressive conditions" includes overgrowths, cysts and new growths. Perhaps this group should be divided, but it is hard to draw the line between hypertrophy and adenoma of the endometrium or between innocent and malignant new growths.

VI. "Retrogressive conditions" occur mainly in connection with the menopause, but the reproductive organs also share in general senile decay. Further, there are errors in the retrogressive changes which are characteristic of normal menstruation, ovulation and involution.

The writer has found that the use of these main groups has certain advantages. The division is logical, and is based upon the most important resemblances and differences between morbid conditions, namely, the pathological. It is familiar to students of medicine, and the headings are so few that they are easily remembered. If the student is able to place a case in one of these groups he has made a definite step towards a complete diagnosis and has gained some useful information about the patient. But it is a division of conditions, of course, not of patients, for one woman may have two or more morbid conditions at the same time. Such a division has the further advantage that it does not magnify symptoms and pathological processes into separate diseases. Nor does it lead to confusion

between primary conditions affecting the reproductive organs and general diseases, such as anæmia, phthisis, rickets and myxœdema which often produce gynæcological symptoms. Such symptoms of general disease may well, like diseases of the female bladder, urethra and rectum, be mentioned by the gynæcologist in teaching; but it is better that they should be kept out of any classification of the diseases of the female reproductive organs which aims at being scientific and logical.

Those who have written text-books and arranged courses of lectures according to the anatomical plan can hardly be expected to approve of the changes now advocated, though the use of pathological main groups saves much space and prevents much repetition. Again, students taught to use a pathological arrangement, unless well-informed and of active mind, might fail to please examiners of the anatomical age. Thus mental inertia and the fear of the examiner tend to perpetrate the anatomical grouping. But it cannot last much longer. Indeed the writer hopes to see the day when it will not be used in any course of lectures delivered in this country, nor in any book which holds a place on the British market.