MEDICAL HISTORY

Aschoff

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Brit. med. J., 1966, 1, 604-605

Ludwig Aschoff, the centenary of whose birthday fell on 10 January, worked during the period of full bloom of the Germanic school of pathology, and lived to be revered as the greatest pathologist of his generation. Yet though he died as recently as 1942 he now appears as remote as if he had lived in another era. His fame lies in his contributions to morbid anatomy, for he was above all a great descriptive pathologist.

He will no doubt be chiefly remembered for his work on rheumatic myocarditis. His description of its characteristic lesion, the Aschoff body, is a minor classic of medical literature.¹ He noted that these foci were situated near small or medium-sized vessels, often in close association with the adventitia. They consisted of small, submiliary collections of unusually large cells with one or more abnormally large, slightly notched or polymorphic nuclei. These cells were grouped in the form of a fan or rosette, in the centre of which there was often a coalescent mass of necrotic material. Large and small lymphocytes and polymorphonuclear cells were wedged among these large cells. Nearly thirty years later F. Klinge showed that the basic structural change was damage to the fine interstitial collagen framework, and suggested that rheumatic fever was essentially a disease of collagen.² Aschoff and his pupil S. Tawara also made an extensive study of the conducting system of the heart (see Fig. 2),³ and in 1906 Tawara described the atrio-ventricular node.

Reticulo-endothelial System

Another contribution of very great value was the concept of the reticulo-endothelial system. This name was coined in 1913 by Aschoff and his pupil M. Landau to embrace that collection of mesenchymal cells, widely distributed throughout the body, which share the ability to phagocytose small particles and coarse colloids. The actual delineation of these cells with

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FIG. 1.—Ludwig Aschoff. (By courtesy of the Editor of the *Journal of Pathology and Bacteriology*. Photo: Lafayette.)

various dyestuffs had already been done by earlier workers, but a great confusion existed as to their identity. The result was that many different names were used to describe them. It needed Aschoff's genius at systematization to classify these numerous cells in a satisfactory way.⁴ It is interesting to note that, though time has proved the correctness of his generalization, the name reticulo-endothelial system is erroneous. The cells are not endothelial nor do they lay down reticulin fibres. The misconception arose from the fact that they line the sinuses of the liver, spleen, bone-marrow, and lymph nodes, and are found in these sites in close association with reticulin fibres.

SEVENTY-FOURTH ANNUAL MEETING

OF THE

British Medical Association.

Held at Toronto, August 21st, 22nd, 23rd, 24th, and 25th, 1906.

PROCEEDINGS OF SECTIONS.

SECTION OF MEDICINE.

Sir THOMAS BARLOW, Bart., K.C.V.O., M.D., LL.D.,
President.

(Continued from p. 1034.)

A DISCUSSION ON SOME ASPECTS
OF HEART-BLOCK.A Discussion by the Combined Sections of Medicine and
Therapeutics.

OPENING PAPERS.

I.—Professor ASCHOFF,
University of Freiburg.

You have been so kind as to invite me to your meeting in order to give me an opportunity to bring before you a few of the facts ascertained during the last few years in an investigation by my pupil Dr. Tawara upon that remarkable intracardiac system of muscles which must be regarded, in the light of modern physiological experiment, as the exciting mechanism (*Reizleitungssystem*) or conducting system which conveys the contraction of the auricles to the ventricles.

Thanking you most kindly for your invitation, I shall speak upon the anatomical-pathological basis of irregularities and failure of heart muscle. For a great many years I have been trying to find an anatomical basis for the feebleness of the hypertrophied heart-muscle which is so frequently observed in patients suffering from heart disease, arterio-sclerosis, and nephritis. It is to the Leipzig school, especially to Krehl and Romberg, that the credit belongs of having drawn attention to the frequency with which alterations in the myocardium occur when there is hypertrophy, especially in cases of valvular disease, and also in acute infectious diseases such as typhoid fever and diphtheria. The statements of Krehl and Romberg on this head have been largely accepted,

FIG. 2.—Title pages of the reports of the B.M.A. meeting in Toronto in 1906 and of Aschoff's address (*Brit. med. J.*, 1906, 2, 1100 and 1103).

His studies on gall-bladder disease are also important. He redescribed the peculiar epithelial-lined clefts arising from the mucosa of the gall-bladder and penetrating through the muscular coat.⁵ These were first noted by Rokitsansky in 1842 and are now called Rokitsansky-Aschoff sinuses. With his pupil A. Bacmeister he wrote a monograph on gall-stones, in which he tried to explain their formation in terms of impaired function, laying special emphasis on stasis and a disturbed cholesterol metabolism. He recognized that multiple mixed stones occurred as the result of inflammation, whereas cholesterol and pigment stones were metabolic in origin. He was one of the first to describe the pathological features of acute appendicitis, and was also interested in gastric ulceration, goitre, thrombosis, and atherosclerosis. He followed Virchow in attributing atherosclerosis to an imbibition of fat from the blood by the arterial endothelium, and also believed that a shearing strain was important in that it led to a loosening of the subendothelial tissue.

Aschoff's Place Today

Aschoff's place in the history of pathology has now become clarified. He comes at the end of that great company of descriptive morbid anatomists which started with Rokitsansky

and Virchow. His apparent remoteness stems partly from the history of his period. At the beginning of this century Germany was the centre of nearly all the advances in pathology, but this trend was sharply arrested by the disastrous first world war and the appalling internal events that duly followed. Aschoff, the last representative of the Germanic school of pathology whose destruction he lived to witness, is an essentially backward-looking figure. Furthermore, pathology has been revolutionized by the introduction of electronmicroscopy, histochemistry, radioactive isotopes, and fluorescent-tracing techniques, all of which study disease process at a subcellular level. There is indeed a tendency nowadays to dismiss descriptive pathology as old-fashioned and of limited value. While this criticism is true in part, it should not be forgotten that the newer methods cannot supplant basic morbid anatomy; they merely serve to extend its range and explain the mechanisms involved. The contributions of Aschoff and his predecessors are not likely to be dimmed with the passage of time, for they embrace fundamental truth.

REFERENCES

- ¹ Aschoff, L., *Verh. dtsch. path. Ges.*, 1904, 8, 46.
- ² Klinge, F., *Ergebn. allg. Path. path. Anat.*, 1933, 27, 1.
- ³ Aschoff, L., *Brit. med. J.*, 1906, 2, 1103.
- ⁴ ———, *Lectures on Pathology*, 1924, Hoeber, New York.
- ⁵ ———, *Verh. dtsch. path. Ges.*, 1905, 9, 41.

Doctors' Letters

[FROM A SPECIAL CORRESPONDENT]

For over 10 years the librarian of the Royal College of Physicians, Mr. L. M. Payne, has been displaying the College's possessions in small exhibitions on special themes, and his carefully prepared catalogues are much in demand among other medical librarians and historians. The latest exhibition comprises a few dozen letters (mostly in manuscript), and fascinating they are. Letters are often peculiarly personal and revealing, and though some of this collection are formal others are spiced with innuendo or speculation, and some throw unintended sidelights on their times or on ours.

William Baronsdale, first treasurer of the College, wrote in 1590 a long letter of advice for a member of the Fanshawe family in Ware. It gives exhaustive guidance on treatment, diet, and how the patient should spend both day and night: "As touching Venus think it Lent time et sis in hac parte, uti in multis aliis, tibi lex. Beare or ale at your best likinge you may use at your meales, so the same be not over smale or strong."

The College has no fewer than 11 autograph letters of William Harvey, which one might think their rarity made priceless—though the catalogue tells us that recently such a letter was sold at Sotheby's for £5,800. Peter Chamberlen, of the family famous for the development of the forceps, was admitted to the fellowship only after "it was decided that he should be gravely warned by the President regarding the need to alter his style of clothing from that more like the dress worn by the very gay young men at court; and that he would not be admitted until he first accustomed himself to the decent habits of the College and the Fellows and wore quiet garments." Even to-day fashionable obstetricians are sometimes thought flamboyant, and the remark of another correspondent still

rings true: "Why don't you turn Physician? You are almost as tedious in your determination as poor P——y."

At the end of his life John Radcliffe was vilified for his reasonable refusal to attend the death-bed of Queen Anne. Obviously much depressed by this, he writes that he has "experienced that though there are

is by no means the spirit of improvement about it which there is at Glasgow. The students do not conceive that they came for study, but that all that was finished at school." Sir George Baker, who is famous for his description of lead-poisoning in making Devon cider, comments on William Hunter, who was obviously not the man to relish the squirarchical connexions so vital to the 18th-century physician: "You know he is a Bachelor, and cares not what he eats or drinks: and I am very sure that a curious case, or some anatomical curiosity would be much more agreeable to him than all the Wine, and all the Venison in the Country."

There are many other treasures to be seen: John Hunter on hornets (see Fig.) and Jenner on cuckoos; a letter to the Duke of Wellington from Manchester describing the first death in a railway accident in 1830; Sir James Risdon

Dear Sir

I have almost finished the anatomical account of the Hornets, but there is something about their natural History that can only be made out, by observing their actions or economy. They are male and female like other christians; but I must not say like other christians, the female has the sting, however the female Hornet has the sting now I want to know the different occupations of the two sexes exclusive of generation. I should like to know if the

repellent medicines for the diseases of the body, those of the mind are too strong and impetuous for the feeble resistance of the most powerful artist. In a word the decays of nature tell me, that I cannot live 14 days"—an accurate enough prediction, for he died just a fortnight after this was written. Dr. Richard Mead writes from his house in Ormond Street, later to become the Hospital for Sick Children. Matthew Baillie compares the Oxford undergraduates with those of his native Scotland, another observation with a modern ring to it: "I assure you that there

Bennett reporting that the General Medical Council decided to set up an examination for women to become medically qualified, if the various licensing bodies were "unable or unwilling to grant their qualifications," and this in 1875. Mr. Payne, in an appendix to the excellent catalogue, remarks how many noted medical men have no recent biographies, but surely publishers have neglected the field of doctors' letters even more? Anyone who can reach Regent's Park before 25 March, when this splendid exhibition closes, should try his best to visit it.