

cases are mainly attributable to changes in conductivity. Such conductivity changes are in all cases in the direction of depression, and in nearly all the cases, but not all, the cause of this was digitalis. The action of the drug is exerted in the main upon the bundle of His. This fact is evidenced because the slowing in many cases was not associated with extrasystoles, and also because in three instances complete block was obtained. Not all cases, however, presented this feature. Just as in Class 2, and with even more reason, there is evidence that the alteration might not be wholly confined to the main bundle, but might

presence of these extrasystoles prevents or fails to influence the inception of the independent ventricular rhythm, so typical of complete block, there does not appear to be sufficient evidence to say.

Conclusion.—From a consideration of the above cases it seems reasonable to conclude that in most cases the cause of bradycardia (excluding Class 1) may be attributable to altered *a.-v.* conductivity, that such a cause is responsible not only for Classes 3 and 4, but also possibly for Class 2; and that in most cases of auricular fibrillation, but not all, the cause is digitalis.

TABLE IV.—*Complete Heart-block; Auricles Active.*

No. of case.	Sex and age.	Disease.	Auricle.	Ventricle.		<i>a.-v.</i> conductivity.	Remarks.
				Frequency.	Rhythm.		
1	M., 66	Cardio-sclerosis.	90	30	Regular.	Block complete.	Patient died. Digitalis tended to increase frequency of syncopal attacks.
2	M., 38	Acute myocarditis.	126	34	"	"	Patient died. Suppurative myocarditis involving especially the interventricular septum.
3	M., 32	?	60	36	"	"	Patient subject to syncopal attacks.

influence also one or other of the branches. Such evidence seems to be afforded by the frequent appearance of extrasystoles. These arose in some cases regularly, as in Cases 1, 2, 5, and 6; in others less regularly. In all the cases where the *a.-v.* block was complete their presence was noted.² In Case 10 the continued administration of strophanthus after the inception of complete block resulted in occasional paroxysms of tachycardia, due to rapidly successive nodal or ventricular extrasystoles. To what extent the

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON A CASE OF RUPTURE OF A NORMAL SPLEEN.

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A MAN, aged 32 years, was admitted into the Campbell Hospital at 10 A.M. suffering from abdominal pain and tenderness. He stated that this from the first was due to a blow he had received three hours previously. His general appearance was anxious; the pulse was 76 and of fair volume, the respirations were not hurried, and there was no abdominal distension, but some pain on pressure which was not definitely localised. The shifting dulness on abdominal percussion was the most marked symptom of abdominal mischief.

The patient was immediately prepared for operation and by the time this was effected his condition had undergone a complete change: the pulse-rate had increase to 100 and the volume was markedly smaller, the respirations were hurried, and the dulness on percussion was very considerable, especially over the pubic region. A median incision was made, and when the abdominal cavity was opened a large quantity of fluid blood escaped and masses of blood-clot had to be removed. The abdominal incision was continued up towards the ensiform process when it was seen that the hæmorrhage proceeded from the lower margin of the spleen. A transverse incision four inches long was then made, the vessels were ligatured, and the spleen was removed. The patient's condition at this time was critical. An intravenous saline injection of four pints was given, and after all the blood had been removed the abdominal cavity was filled with hot saline and the wound was stitched up by through-and-through sutures. Recovery was practically uneventful, but brachycardia was a marked symptom for some time.

The interest in this case lies in the facts that the patient was a healthy well-developed man, the spleen

apparently normal in every respect, and the blow received not severe. The rupture was an inch in length, situated along the lower margin. The blood-count six weeks after operation was as follows: Red blood corpuscles, 4,200,000; white blood corpuscles, 17,600; polymorphonuclear, 28 per cent.; transitional, 10 per cent.; large mononuclears, 12 per cent.; lymphocytes, 50 per cent.; and eosinophiles, *nil*. After six months: Hæmoglobin, 74 per cent.; red blood corpuscles, 4,000,000; white blood corpuscles, 14,000; polymorphonuclear, 72 per cent.; large mononuclears, 8 per cent.; lymphocytes, 20 per cent.; and eosinophiles, *nil*. After one year: Hæmoglobin, 93 per cent.; red blood corpuscles, 5,100,000; white blood corpuscles, 8,000; polymorphonuclear, 40 per cent.; large mononuclears, 20 per cent.; lymphocytes, 28 per cent.; and eosinophiles, 12 per cent. These figures tend to confirm the observations of Y. Noguchi which he reported last year in the *Berliner Klinische Wochenschrift*, of which an interesting *résumé* is given in the January number of the *Medical Review*. Calcutta.

A CASE OF LARGE DERMOID CYST SITUATED OVER THE STERNUM.

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F.R.F.P.S. GLASG.,

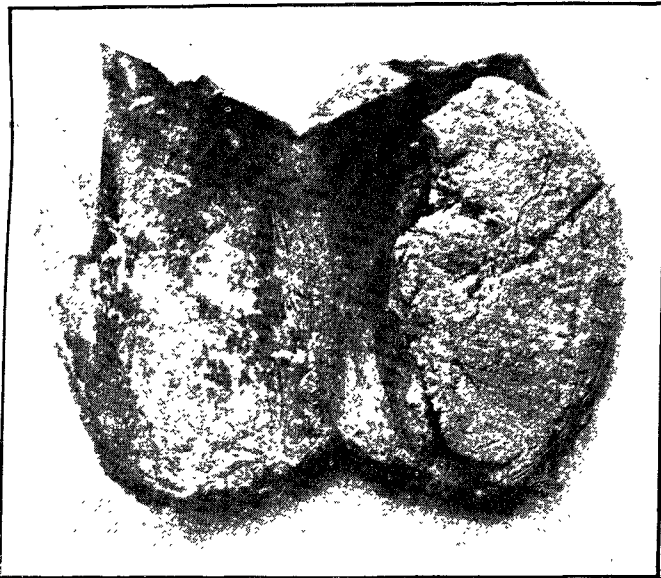
SURGEON TO THE ELDER HOSPITAL, GOVAN; ASSISTANT SURGEON, GLASGOW ROYAL INFIRMARY; ASSISTANT TO THE REGIUS PROFESSOR OF SURGERY, GLASGOW UNIVERSITY, ETC.

THE patient, a girl aged 17, was sent to me by Dr. W. Allan, of Govan, and was admitted to the Elder Hospital on March 21st. The history was to the effect that a small red mark existed from the time of birth in the middle line a short distance below the episternal notch. Little difference was noticed in the condition until about the age of 12, when it began to increase in size, appearing at first as a thickening of the skin under the mark, which, as it grew, became more tumour-like. Shortly thereafter, when the swelling was of about the size of a hen's egg, but flatter, it was first shown to a medical man, who did not advise surgical interference. Four years ago, when the patient was 13 years of age, the tumour increased rapidly in size, became much softer, and caused a sensation of breathlessness, which ultimately induced her to see Dr. Allan.

On examination a soft, fluctuant swelling, of the size of a large orange, was found, situated in the middle line of the chest, rather above the level of the breasts, which extended slightly into the prominence of the left breast when the patient lay flat. Above it came to within an inch of the episternal notch. In contour and general appearance it roughly resembled a third, median, breast without nipple. Numerous dilated veins were seen on the surface, and the skin over the most prominent part, which was situated in front and slightly underneath, was reddened and very thin. There was no tenderness on pressure, but the patient complained of an increase in the slight choking sensation which she always had; and on relaxation a curious, almost crepitant sensation was felt by the examining fingers, both symptoms suggesting the possibility of some connexion with the interior of the chest, and perhaps the lung, which, however, was ultimately found not to exist. The tumour was distinctly fluctuant, but there was no thrill. It was not translucent, nor was it lobulated. It moved freely on the surrounding tissues, and the skin was freely movable over it, except at the prominent part, already mentioned, on the antero-inferior surface. The patient in other respects was normal and in excellent health.

Operation.—The tumour was easily removed through a vertical incision extending for about three inches down from a point one inch below the sternal notch. In spite of care, it was opened at the point where the skin was very thin, and fully an ounce of opalescent fluid escaped, some of which was preserved and examined. The interior at the same time was seen to be occupied by sebaceous-like matter in the form of innumerable minute granules, which, however, became matted together in the process of enucleation of the tumour, which presented no difficulties. There was no connexion with the sternum nor mediastinum, nor was there a depression in the bone. The patient made an uninterrupted recovery, and subsequently expressed herself as

FIG. 1.



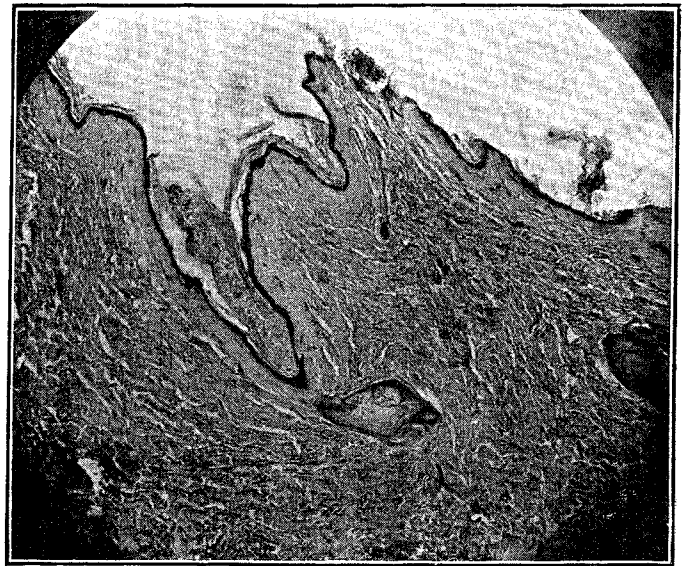
Shows the tumour after removal and hardening. The tumour has been divided longitudinally and shows skin lining and pultaceous mass. (Reproduced from photograph.)

entirely free from the breathless feeling. Although no skin was removed at the operation, it was observed that after removal of the tumour there was no redundancy such as had been expected. It may be presumed, therefore, that the breathless sensation was due to slight tightness of the skin of the chest, caused by the presence of the tumour.

Pathological examination.—The fluid removed from the cyst was sterile, and contained numerous degenerate epithelial cells. The cyst itself, after hardening, was divided longitudinally, and was found to consist of a capsule of connective tissue externally and skin internally. From the skin surface numerous very fine hairs protruded. This capsule was complete, but whereas the skin was thick and well formed on the deeper aspects of the tumour, it became thinner as the anterior aspect was approached, until around the part ruptured at the operation the presence of skin was doubtful. The cavity of the tumour, after escape of the fluid and subsequent hardening, was entirely

occupied by the pultaceous matter, embedded in which were a few fine long hairs. The pultaceous matter, however, had entirely lost the striking granular appearance which arrested attention when the tumour was first opened. (Fig. 1.) A microscopical examination of portions of the skin lining of the cyst showed comparatively little attempt at papilla formation, and hair follicles were very scarce. On the other hand, glands were fairly numerous, opening on the skin surface, as a rule, by greatly dilated ducts. (Fig. 2.)

FIG. 2.



Low-power microphotograph of skin lining showing glands and greatly dilated duct.

So far as the writer can ascertain, dermoids of the front of the sternum are extremely rare; indeed, the only cases reported which he can find are those referred to by Bland-Sutton,¹ and he has therefore thought it desirable in reporting this case to give as full particulars as possible regarding it.

Glasgow.

Medical Societies.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases.—Conduction Defects in the Heart.—Intestinal Toxæmia.

A MEETING of this society was held on July 2nd, Mr. J. M. COTTERILL, the President, being in the chair.

Dr. W. G. SYM and Mr. A. A. SCOT SKIRVING showed a female, aged 24, after excision of an orbital fibro-sarcoma by Krönlein's method. She had complained of slight impairment of vision in the left eye for about seven years; proptosis was first observed five years ago, and a feeling of heaviness without pain during the past four years. The pupil was markedly dilated; the movements of the eye were normal; there was no diplopia; the fundus was slightly congested and oedematous. The operation, performed on Jan. 10th, 1913, revealed an encapsulated soft tumour of the size of a large grape, closely applied to the outer and posterior aspect of the globe. The result had been satisfactory except for impairment of movement in the external rectus.

Mr. SCOT SKIRVING exhibited an inveterate case of Tuberculosis of the Left Humerus and Scapula treated by ileo-sigmoidostomy in a girl aged 9 years. Since the operation distinct improvement had resulted; some of the sinuses had closed and others were healthier.

Dr. G. D. MATHEWSON communicated a paper on Conduction Defects in the Heart, with lantern demonstration. He drew attention to the value of the electrical or galvanometric method in the recognition of lesions in the conducting

¹ Bramann, *Archiv für Klinische Chirurgie*, 1890, Band xl., p. 101; Cahen, *Deutsche Zeitschrift für Chirurgie*, 1891, Band xxxi., p. 370; Clutton, *Transactions of Pathological Society*, 1887, vol. xxxviii., p. 393.