

cells which contained the usual oat-shaped nuclei. There were a considerable number of thin-walled new vessels and areas of extravasated blood corpuscles were seen in various places. The small glands removed were unusually vascular, as seen in stained sections, and the loose fatty tissue around was even more congested, there being greatly dilated vessels and blood spaces, thus resembling a cavernous naevus. [There was no evidence, however, of such angiomatous structure in the primary tumour.] In the glands there was no evidence of infiltration with growth, and in this opinion I am happy to be confirmed by Mr. A. G. R. Foulerton, director of the cancer research laboratories at the Middlesex Hospital.

The points of interest in this case are: (1) the question of clinical diagnosis; (2) the remarkable ease with which the tumour shelled out in spite of its sarcomatous nature, accounted for by (3) the thin but well-defined capsule and the ill-defined seat of origin of the swelling, which was, in fact, a parosteal growth, as distinguished from a sarcoma originating in the cervical lymphatic glands; and (4) its congenital nature.

1. The diagnosis had first to be made between a benign and a malignant tumour. In favour of benign were the congenital origin and the physical signs already mentioned, notably the smaller nodules, feeling like tense cysts, and the fluctuating areas, which strongly suggested the condition to be one of hygroma or lymphangioma, the presence of the distinctly naevoid condition of the skin over the most prominent part further suggesting a mixed angioma and lymphangioma. The congenital origin, however, in no way contra-indicated malignancy and in favour of it were (1) the marked fixity of the tumour to the deep structures, so that movement independent of the scapula was impossible; and (2) the rapid growth since birth, especially during the three or four weeks prior to admission and operation.

2 and 3. The fixity and situation of the growth, which was of very considerable size for a child only five and three-quarter months old, made one anticipate some difficulty in its removal, which proved, however, to be comparatively easy, no large vessels being involved. The tumour was definitely encapsuled and was only slightly connected with the spine of the scapula, in all probability arising in the tissues immediately outside the periosteum, thus belonging to the rarer variety of peripheral (as distinguished from endosteal) sarcomata, and usually designated as "parosteal," which, as Clutton² remarks, only secondarily invade bone. Erichsen refers to what is apparently an exactly similar case in his own practice occurring in an adult and from the account, which I venture to quote in detail, it would appear to have been parosteal at its commencement, only secondarily invading the spine of the scapula. "A tumour as large as a full-sized turnip was removed from the shoulder of a middle-aged man, and was found to be slightly connected with the spine of the scapula. It presented all the characters of a spindle-celled sarcoma, consisting almost entirely of densely packed fusiform cells with oval or oat-shaped nuclei. A small mass re-appeared before the wound had completely healed. It recurred a second time and a portion of the spine of the scapula removed with the tumour showed that the growth had sprung from the cancellous tissue."³ With regard to the actual situation of the growth, Mr. J. Bland-Sutton in his work on Tumours, speaking generally (not especially referring to children), says that the scapula is sometimes attacked by sarcoma usually springing from the body of the bone, the coracoid process exceptionally being the seat of origin. He speaks of sarcoma of the clavicle as being excessively rare. This is of some interest in the present case, as the slight connexion of the tumour with the acromion was close to the outer end of that process and therefore immediately adjacent to the lower margin of the acromio-clavicular articulation. Its parosteal origin is largely confirmed by the microscopical appearance, spindle celled sarcoma arising primarily especially in the periosteum and tissues in its neighbourhood, in fasciæ, and in the secreting glands, kidney, ovary, testis, parotid, &c. As a few small glands were also removed from above the growth it may be as well to state that primary sarcoma of the cervical lymphatic glands, as Mr. A. Pearce Gould says,⁴ is not a common disease, is generally met with in adults at or past middle life, and consists microscopically of small round cells imbedded in a very fine wide-meshed stroma.

4. The congenital origin of this sarcomatous tumour in such a situation as the shoulder as distinguished from the internal organs is of some interest. According to Ashby and Wright the connective tissue group of tumours is that almost exclusively met with in children. Sarcomata appearing after birth are "rare in children, are most often seen in connexion with the periosteum, and often follow injuries."⁵ The same authors also record a case of rapidly growing sarcoma as a sequel of acute periostitis. With regard to congenital sarcoma of the viscera the kidney is perhaps the organ most frequently involved, and Mr. F. T. Paul is of opinion that renal sarcomata are probably invariably of congenital origin.⁶ The present writer had recently to perform hysterectomy in a child five months old for sarcoma apparently arising from the posterior lip of the cervix uteri, fungating into, and infiltrating the wall of, the vagina, exactly as described by the American gynaecologist Cullen.⁷

With regard to congenital sarcoma, apart from visceral disease, the present writer has seen two other cases operated on by other surgeons, one in connexion with the periosteum of the tibia, also in a child five months old; the other, also arising just above the ankle, in the extensor longus digitorum muscle. The first-mentioned growth formed an ill-defined and somewhat diffuent swelling just above and behind the base of the internal malleolus of the right tibia. It was of about the size and shape of a chestnut and its consistence was such as to suggest a hygroma. The microscopical appearance was reported to be that of a round-celled sarcoma with fibrous stroma. According to Mr. H. Stansfield Collier, however, tumours with such an appearance, microscopically, when occurring in young children, sometimes show an extremely low degree of malignancy. They recur very slowly, and grow very slowly, lasting for years. One such case, the patient being still alive, he has had under observation for at least four and a half years, and he prefers to look upon this class of growths as fibro-cellular rather than as being sarcomata in the usual sense of the word. This type should therefore be remembered in attempting to make a prognosis.

In conclusion, I wish to express my thanks to my colleague, Mr. Douglas Drew, for great assistance during the operation, and to the house surgeon at the North-Eastern Hospital, Dr. Pinniger, for his careful notes.

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A CASE OF GOITRE IN AN ABNORMAL THYROID GLAND.

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THE anatomical relations of the thyroid body in this case are sufficiently peculiar to justify a rather full report.

The case was that of a dissecting-room subject, an old woman. Before dissection she appeared to have an ordinary parenchymatous goitre, the left lobe of the thyroid being much enlarged but maintaining its normal shape and presenting no evidence of adenomata or cysts. The isthmus seemed to be large and the right lobe was increased in size although it was smaller than the left. On dissection, however, the following condition was found. The left side of the neck was occupied by a smooth oval tumour which was broad below and rather pointed above. Its lower end was about an inch below the clavicle; its upper end reached the level of the hyoid bone; it was completely surrounded by a strong investment from the cervical fascia, from which it could easily have been shelled out. The sterno-mastoid, somewhat thinned, was on the outer side of the tumour; expanded over it lay the sterno-hyoid and omo-hyoid muscles. On the inner side it was completely separated from the thyroid gland by two layers of fascia which formed the capsules of the gland and tumour respectively and between the two ran the sterno-thyroid muscle, somewhat atrophied, but otherwise normal and distinct. The right lobe of the thyroid gland

⁵ Diseases of Children, p. 764. (See also a paper by Dr. Hawthorne and the present writer in the Transactions of the Society for the Study of Disease in Children, vol. ii.)

⁶ Ibid.

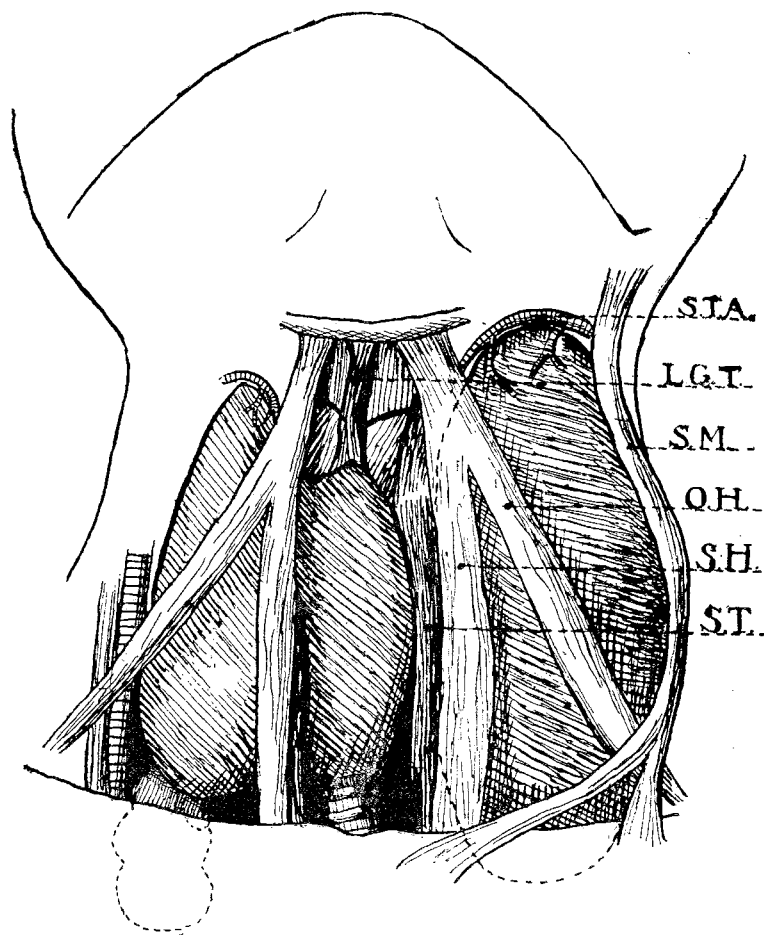
⁷ This case is also quoted by Lewers in his work on Cancer of the Uterus.

² Treves's System of Surgery, vol. i., p. 914.

³ Erichsen's Surgery, vol. i., p. 1039.

⁴ International Text-book of Surgery, vol. ii.

was enlarged and had attached to the back of its lower extremity a lobulated process which passed vertically downwards into the thorax for rather more than an inch. This process was within the capsule of the gland, but separated from its substance by a thin layer of connective tissue. In the middle line was a lobe of the thyroid, in shape resembling a rather large left lobe, pushed over by the tumour; but from its apex a well-marked band of fascia, representing the levator glandulæ thyroideæ, passed up to the hyoid bone. Between these two lobes were the right sterno-hyoid and



S.T.A., superior thyroid artery. L.G.T., levator glandulæ thyroideæ. S.M., sterno-mastoid. O.H., omo-hyoid. S.H., sterno-hyoid. S.T., sterno-thyroid.

sterno-thyroid muscles lying in a shallow groove; the omo-hyoid passed obliquely over the right lobe. On the right side the carotid vessels and internal jugular vein were pushed outwards; the superior and inferior thyroid arteries and the recurrent laryngeal nerve were normal. On the left side the carotid was much displaced outwards and backwards and overlapped by the internal jugular vein. The superior thyroid artery arose normally and gave off a normal superior laryngeal branch; it was of large size and reached the apex of the tumour and passed down along its inner border, having exactly the same relations to it that a normal artery has to the lobe of the thyroid gland. There was no artery to be found at a similar part of the lobe in the middle line. No other artery was found to reach the tumour. The left inferior thyroid artery was very minute and ended in the tissues behind the capsule of the tumour. The trachea was somewhat flattened laterally and pushed over to the right. The left recurrent laryngeal nerve was in its normal position by the side of the trachea.

The tumour was examined microscopically and presented the structure of an old cystic goitre. At first sight this appeared to be a case of tumour originating perhaps in an accessory thyroid and pushing the thyroid gland over to the right. It is rare for tumours in the neck, other than thyroid tumours, to displace the carotids outwards.

Small isolated portions of thyroid tissue, called accessory thyroids, occur fairly often in the course of the thyroglossal duct, and tumours in accessory thyroids have been not infrequently reported in other situations. C. Ogle¹ and Bernard Pitts² describe tumours resembling thyroid tissue microscopically behind the sternum. Several have been

cystic, with a marked tendency to intra cystic growths, as cases reported by Pollard,³ Edmunds,⁴ Barker,⁵ and Wolf.⁶ In this case, however, the distribution of the left superior thyroid artery on the tumour suggests very strongly that the latter was developed, not from an accessory thyroid, but from the left lobe of the thyroid, congenitally ununited with the rest of the gland; and that the part of the thyroid in the middle line was an enlarged isthmus and pyramidal lobe. This view is strengthened by the presence of the fibrous band mentioned above, passing to it from the hyoid bone; such a band commonly passes to the apex of the pyramidal lobe.

The thyroid gland is developed from a median process of the pharyngeal hypoblast, which bifurcates below and forms the pyramidal lobe, isthmus, and part of each lateral lobe; the main part of each lateral lobe is formed by a lateral outgrowth from the pharynx. In man they are found to be fused together in an embryo of 13.8 millimetres in length,⁷ or about the seventh week.⁸ In most vertebrates they remain distinct, only in mammals do they become united into one organ.⁹ In rare cases in man the isthmus is entirely absent and the two lateral lobes quite separate.¹⁰ In many vertebrates, however, the median thyroid rudiment divides to form two distinct lateral glands,¹¹ but in this case the median lobe appears to be well developed and undivided.

In a good many specimens of goitre the tumour shows deep grooves in which the muscles lie,¹² but I have found none in which there were two distinct capsules and a muscle completely separating two parts of the gland. C. F. Marshall in a paper on Variations in the Form of the Thyroid Gland in Man¹³ figures one specimen in which the pyramidal lobe is attached to the left lobe and above to the hyoid bone, the isthmus is absent, and the right lobe is separate. No doubt if this gland had become goitrous a similar condition would have been produced.

The illustration is from a sketch kindly made for me by Mr. W. R. Harris, student at St. George's Hospital.

Wimpole-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

THE LOCAL TREATMENT OF PSORIASIS AND MOLLUSCUM CONTAGIOSUM.

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THE local treatment of psoriasis and molluscum contagiosum is a very difficult matter in general practice. The methods adopted to eradicate psoriatic patches are more or less successful. At the same time, if one could treat the initial papules successfully there would be no patches to treat. During the past few months a number of typical cases of psoriasis on which I could practise what I consider to be a new line of treatment have come under my care, and whilst the propriety of the treatment is still *sub judice* I think the success already met with warrants more extended application.

CASE 1. *Psoriasis of 28 years' duration.*—The patient was a married woman, aged 48 years. Her father and younger brother were subject to psoriasis; her mother and husband were free. The tendency of the family tree was towards psoriasis in the females, away from it in the males. The patient first suffered from psoriasis of both arms when 20 years of age. Her health was always good. She had six children all of whom were subject to "nettle-rash" when young. The spring and autumn brought out

³ Ibid., vol. xxxvii., p. 505.

⁴ Ibid., vol. xlvii., p. 222.

⁵ Ibid., vol. xlvii., p. 225.

⁶ Archiv für Klinische Chirurgie, Band xxxix.

⁷ His: Anatomie Menschlicher Embryonen.

⁸ Minot: Human Embryology.

⁹ Quain's Anatomy, vol. i., part i., p. 111.

¹⁰ Berry: Diseases of the Thyroid Gland.

¹¹ Wiedersheim: Grundriss der Vergleichenden Anatomie der Wirbelthiere.

¹² Museum of the Royal College of Surgeons of England, Nos. 2899 and 2906.

¹³ Journal of Anatomy and Physiology, vol. xxix., p. 234, and Fig. 14.

¹ Transactions of the Pathological Society, vol. xlvii., p. 224.

² Ibid., vol. xlii., p. 301.