

## CHAPTER IX

### TUMOURS OF THE NECK AND OF THE PAROTID REGION

THE complicated topographical relations in the neck cause some difficulty to beginners in judging the nature of tumours in this region; for the physician well drilled in anatomy, the complexity of structures serves rather as a means of orientation.

Therefore, the data which point to the position, origin, connection, and extension into the deeper parts become more complete and numerous. There are certain definite points by which most tumours of the neck can be recognised. He who possesses the gift of intuition, who recognises and appreciates the symptom complex as a whole, will always be able to make a readier diagnosis than the one who examines and weighs isolated symptoms, regarding them as disjointed pieces of a complete structure. Dieffenbach called this perception by means of inspection *autopsy*, and gave Rust great credit for so assiduously exercising his pupils in this branch. Therefore, it is advisable to study these tumours in the grouping in which they are wont to be encountered in practice, and not according to the pathological divisions to which they belong.

Let us consider, first of all, the congenital tumours of the neck. Most striking, because of the whole train of symptoms, is the congenital cystoid of the neck, HYGROMA CYSTICUM colli congenitum. According to the

researches of Köster, it is an ectasis of the lymph vessels. It consists of a tumour composed of fluctuating lobes, which are more or less connected with each other. As a rule, it first makes its appearance in the submaxillary region, but soon, by its rapid growth, extends upward over the cheek and downward over the neck. The most serious symptoms of compression of various organs arise, when the tumour penetrates into the deeper layers. It follows that children afflicted with this disease rapidly succumb, during the first months of their existence, as the result of impaired nutrition; but cases are met with in which pressure on the air-passages causes a much earlier fatal termination. The patients very rarely reach an adult age. As the tumour, in its rapid growth, penetrates everywhere, between and about the organs, its extirpation can be thought of only in the fewest instances. The cystic swellings are situated both in the superficial and deeper tissues, therefore some will be plainly fluctuating and covered by a thinned-out layer of skin, while others, more deeply placed, will not show fluctuation as unmistakably. In some cases the skin is thickened by elephantiasis. This form of swelling is sufficiently characterized by its appearance at birth, its rapid growth, and the multiple number of ectases.

Simple cysts also appear congenitally. They are related to the developmental processes of the organs in the neck. We know that they originate from a branchial cleft obliterated at both ends. They have therefore been called *Branchiogenetic Cysts*. Recently Rabl has shown that the cysts do not originate from the branchial canals which lie between the arches, but from a passage which extends from the second branchial cleft



to the sinus cervicalis. Rabl calls this canal branchial, therefore we may continue to employ the name of branchial cyst with, however, a new significance. If the cleft has closed toward the inside, but not toward the outside, an external *Branchiogenetic Fistula* results; if the obliteration is complete externally but not internally, we speak of an internal fistula; if no closure has taken place, the fistula is complete. The external opening is situated directly above the sterno-clavicular articulation; the internal is at the pillar of the fauces.

Clinically, branchiogenetic cysts appear as rounded, elastic, fluctuating tumours, which are found in any region of the neck, from the lobe of the ear to the jugulum. They may be attached to the lower jaw, to the hyoid bone, or to the styloid process, but most frequently to the sheath of the great vessels. Their contents is pulpy, sometimes oily, in consistence. We are indebted to Hochenegg for a point in diagnosis which may readily be applied. It consists in laying an ice-bag upon the tumour; if the contents is pulpy or oily it congeals, and the tumour grows solid. Sublingual dermoids stand in close relation to the above-mentioned more laterally placed tumours.

The *Cartilaginous Skintags* found in the neck, and first described by Weinlecher, owe their origin likewise to embryonal processes of development. As a rule, they are small, symmetrically placed appendages, which inclose a bit of cartilage in their interior—probably a remnant of a branchial arch.

In the third place, goitres occur in the new-born just as in adults. Their diagnosis will be discussed later.

Finally, there remains to be described a tumour which appears in the first few days after birth, causing

great perplexity to the beginner, as I saw in two cases which came to my notice. An elongated swelling, firm, tense, and sharply circumscribed, embraces the whole, or the greater part, of the sterno-mastoid. Whether it is painful or not can not be determined in the new-born. In some cases the child screams whenever the tumour is lightly touched, thus giving the impression of an inflammatory process.

The acuteness of the pain passes away in a few days. It is nothing more than a MYOSITIS of the sterno-cleido-mastoid, due to difficult labour. Breech delivery, in which the aftercoming head has to be pulled out with great force, usually produces the condition. The head of the infant is displaced toward the sound side. *This must be kept in mind*, as we are more apt to expect the inflamed muscles to be contracted (similar to the inflamed psoas) and the head bent toward the affected side.

Quite as confusing to the beginner is the appearance of one or more hard swellings in the substance of the sterno-mastoid of a new-born child. Dieffenbach, not so long ago, in showing the first few cases which came under his observation, described them as something new, and not previously observed. These are RUPTURE of the sterno-mastoid, due to difficult labor. As a rule, the parents bring the infant to be examined several days after birth, and the physician is apt to regard it as an adenitis. Dieffenbach, as early as 1830, made the following clever observation: "The case has a striking resemblance to newly healed fractures of the clavicle. Although the fracture passes unnoticed by the parents, the callus attracts attention. They seek the physician in order to find out whether the swelling is not an en-



larged gland." This shows that even in the bygone days in which Dieffenbach's report appeared, in Rust's Handbook, parents held the same view of surgery as the parents of to-day.

The diagnosis of the cervical swellings seen in adults will be treated without strict classification, presenting them as a series of pictures.

GOITRES head the list of tumours of the neck because of their frequency (at least in certain countries), their size, their complicated pathological anatomy, and the important secondary symptoms caused by them.

The practitioner inquires, Are we dealing with a tumour of the thyroid gland, and what is its nature?

The tumour is connected with the thyroid: (1) If it lies beneath the muscles which cover the gland. As soon as the tumour is somewhat larger, and extends laterally, it is covered chiefly by the sterno-mastoid muscle, which can be raised away from the tumour, by grasping its upper or lower insertion. (2) If the tumour is of granular structure, or is embedded in the granular structure of the thyroid, which closely surrounds it, and is directly continuous with the gland. (3) If it rises and falls during the act of deglutition.

Tumours of the thyroid gland may be classified as follows:

(a) *Parenchymatous goitre*, if the whole growth is composed of small granules of approximately equal size.

(b) *Cystic goitre*, if we are able to distinguish rounded, sharply circumscribed, elastic, and fluctuating nodules in the granular substance of the tumour.

(c) *Hyaline degeneration* of one or more nodules, if a rounded, circumscribed, elastic, soft nodule is prom-

inent, but in spite of its superficial location gives no signs of fluctuation. To distinguish between this degenerative variety and a cyst is almost impossible, if the nodule in question is deeply embedded in the mass, and therefore does not give unmistakable signs of fluctuation.

(d) *Fibrous goitre*, if larger, very hard lobules are present, with small granular structure at their periphery. This is due to a hyperplasia of the follicles at the periphery, which goes hand in hand with the formation and sclerosis of the interstitial connective tissue.

(e) *Vascular goitre*, if in addition to distended superficial veins, the tumour can be reduced on pressure, but immediately regains its former size when the pressure is removed. If there are numerous arteries which pulsate and cause a bruit, it follows that the arteries are dilated and increased in number (*struma aneurysmatica*).

Malignant tumours not rarely develop in a thyroid gland, which has previously shown signs of enlargement. The tumour in question may be a sarcoma or a carcinoma. The striking rapidity of growth within a recent period is the most noticeable symptom of malignancy. A whole series of other symptoms may be added to this. Pain is felt in remote parts; as a rule, it is situated in the occiput or shoulder, rarely in the arm. The gland feels more homogeneous: a single hard mass. Malignancy can be recognised early by involvement of neighbouring structures (muscles, esophagus); by symptoms referable to the sympathetic system (pupillary changes, position of the bulb); and by marked enlargement of the veins situated over the sternum (due to compression or obliteration of the veins of the neck).



Later in the course of the disease metastases give characteristic signs (spontaneous fractures of bones, symptoms of tumour at the base of the skull).

A patient suffering from malignant tumour of the thyroid could not swallow, but an esophageal bougie passed with ease. How was this possible? The autopsy explained the condition, though it had been previously suspected. The pharynx was almost completely surrounded by the growth, therefore rigid and incapable of contraction.

A youthful subject had a tumour of the neck, which, seen from a distance, appeared to be a goitre. The tumour extended laterally, on both sides of the neck, behind the sterno-mastoid. Closer examination showed that the carotid of the left side was *in front* of the tumour and pulsated *visibly*; on the right side pulsation could not be seen, but could be *felt*. Goitres crowd the carotid back—that is, lie in front of the artery. Here the tumour, which fluctuated, was posterior to the vessels. This apparent incongruity directed attention to a previously unnoticed rigidity of the neck. Diagnosis: Bilateral cold abscess, due to tuberculosis of the cervical vertebræ. Incision evacuated pus.

LYMPHATIC TUMOURS of the neck are of very frequent occurrence, forming the so-called chainlike tumours (*Kettengeschwulst*) which extend down the neck. These swellings correspond, in their anatomical situation, to the position of the various groups of lymph glands: the submaxillary glands, the glands situated in the carotid triangle between sterno-mastoid and the larynx, and finally the glands placed behind the sterno-mastoid, about the jugular vein, extending to the supraclavicular fossa. Frequently all three groups, sometimes bilaterally, are swollen, so as to form multilobular masses composed of very many sharply circumscribed nodes. In other cases a well-marked swelling may be found, for instance, in the submaxillary region; while the palpat- ing finger detects only the beginning of this chainlike

enlargement along the inner edge of the sterno-mastoid or the supraclavicular fossa of the same or the opposite side. In the great majority of cases this is the picture presented by scrofula, a disease of childhood, prevalent especially among the poorer classes. As careful physicians we should not fail to examine the nose, mouth, and pharynx of the patient, in order to determine whether a carious tooth, an ulcer, or a catarrh may not act as a local cause of infection and secondarily produce a swelling of the glands.

If the individual is healthy and not of tubercular habitus (we must assume that the tubercle bacillus is unable to infect every person) one or more lymph glands may enlarge because of some ulcerative process on the head; but the swollen glands resolve as the infection subsides. If an extensive invasion of pus cocci has taken place, an acute suppurative lymphadenitis will result. Tubercular infection of the glands leads to chronic adenitis, and, as a rule, to cheesy degeneration or suppuration of the glands. After breaking down, the characteristic tubercular ulcerations result, and are marked by violet-coloured, deeply undermined and sharply cut edges. When these heal they leave typical multiple, radiating scars, with raised borders, sometimes bounded by very small tags of skin. Cheesy degeneration and softening, in the shape of a cold abscess, is distinctive of tubercular adenitis.

In each case a peripheral point of origin of the trouble must be suspected and sought for, just as in the case of a syphilitic bubo we examine the genital region for a chancre. During this examination, it is necessary to keep in mind the peripheral regions drained by each set of lymphatic glands in the neck.



Multiple *leukæmic* enlargements of the lymph glands appear in the neck. The swellings are hard, separately movable, and never attached to the skin. They rarely exceed a walnut in size, never soften, and are painless. Similar swellings are found in the axilla and groin.

That peculiar disease of the lymphatic glands which was considered MALIGNANT LYMPHOMA by Billroth is now commonly called lymphosarcoma. A whole group of glands enlarges, the individual glands remaining discrete, freely movable, and of varying consistence.

As a rule, the swelling first appears in the submaxillary region, then along the sterno-mastoid, and in the supraclavicular fossa. The swelling can attain enormous proportions. In the course of a short time metastases are noticed in other parts of the body, and the patient succumbs within two years, whether the glands are extirpated or not. If the above-mentioned picture is encountered, and no local or general cause for the swelling can be found, the diagnosis of malignant lymphoma may be made by exclusion.

The name of lymphoma, as applied to non-inflammatory swellings of the lymph nodes, includes lymphoma simplex, lymphoma scrofulosum, and lymphoma malignum.

Lymphatic tumours situated laterally and high in the neck, and showing a marked tendency to infiltrate, may give the impression of a sarcoma, but sometimes are secondary carcinomatous glands due to a hidden and deep-seated primary focus—for instance, in the sinus pyriformis.

Sarcomata of the spinal column may grow either laterally or directly forward, crowding the organs before them, thus producing dysphagia and dyspnoea.

They are a *noli me tangere*, and their apparent mobility is deceptive, for the tumour may be attached by a slender pedicle, and then appear to be mobile. The nature of this very rare growth must be determined in each case according to general principles.

As in other parts of the body, *single* tumours of the neck may be systematically classified. For example, they may be either solid or fluctuating. If the tumour fluctuates, or is unmistakably elastic, it contains fluid, which may be cyst fluid, blood, or pus. If the contents is blood, the tumour is compressible, and is an angioma, or a blood cyst, or an aneurism.

An *angioma* is not sharply circumscribed, is of soft consistence, and has cutaneous vessels, which shine through the skin with a bluish tinge, coursing over its surface. It can not be mistaken for any other condition. A *blood cyst*, which can be emptied, is a rounded, readily palpable tumour. An *aneurism* pulsates. If a tumour is not compressible, and does not pulsate, its contents are neither venous nor arterial blood. Such a swelling must contain pus, turbid cyst fluid, or clear fluid. The latter is at once characterized by its translucency, and the tumour is recognised as a cyst. Doubt arises when the tumour does not contain blood and is not translucent. Such a tumour may be a sebaceous cyst, or an enlarged bursa, or a COLD ABSCESS. (In an acute abscess the inflammatory symptoms are so evident that it could not be confused with these other conditions.) Only deeply placed cold abscesses, which are rounded, tense, and sharply circumscribed, due to a broken-down lymph gland, are included here. The following points should be looked for:

1. Slow, almost painless suppuration takes place