ical, which are at all derivative from the "acute" stage, and that therefore we must exclude from rheumatoid classifications any disease with hypertrophic bone lesions.

(3) It is suggested, though not proven, that the changes in rheumatoid may be due to faulty metabolism, the absorption from the digestive tract of toxins, or some chemical product of intestinal digestion, which ought not to be thus absorbed, if all tissues were properly performing their functions.

A CASE OF PAPILLARY ADENOCYSTOMA OF THE THYROID GLAND.¹

BY HARRY C. LOW, M.D., BOSTON,
Late First Assistant in Pathology.

D. E., female, 49 years old. Admitted to hospital as a patient of Dr. F. B. Lund on May 28, 1901. Patient had much trouble from sore throat

FIG. 1.

about 25 years ago, and since then neck has remained swollen. Year after year the tumor gradually grew in size, but more rapidly in the last 2 years. During the last 7 years she has had more or less discomfort at night, with stiffness of neck, and has had some palpitation. No headache or dizziness. No loss of weight, no difficulty in breathing or swallowing.

Physical examination.—The eyes are negative. Heart practically normal. In the median line of the neck is a tumor measuring about 18 inches in circumference. This extends down behind the sternum, out under the sternomastoid muscles, and up to the lower jaw. It extends a little further to the right side, and seems to pass under the right sternomastoid muscle. It moves on respiration, and is not adherent to the skin.

¹From the Pathological Laboratory of the Boston City Hospital. Contributed to the Boston City Hospital Medical and Surgical Report.

At operation (Figs. 1 and 2) the tumor was removed by Lund, under local anesthesia, with 1000 solution of cocaine. With the patient in the half-reclining posture, an incision 4 inches long was made from obliquely across the front of the tu-

FIG. 2.

mor, beginning above on the right, and ending opposite the suprasternal notch.

After peeling back the skin and platysma, and ligating the superior and inferior thyroid arteries on the right, the capsule of the cyst, which was covered with numerous large veins, was incised, and the tumor quickly and easily enucleated. The patient made a rapid recovery.

Pathological report.—The specimen consists of a tumor mass weighing 680 gm., after it had

FIG. 3.

been cut in halves and about 10 cc. of fluid escaped. It measures 11 x 12 x 9 cm. It is nearly symmetrical, but on one side is slightly concave. It is covered with a firm, thin, fibrous capsule, which is shiny and fairly smooth, and on which

there are rough fibrous shreds. There is no apparent point of attachment. The surface is white, with fibrous bands, and mottled with dark and bright red areas, which, beneath the thin wall, seem translucent. On section a moderate amount of thin, colorless fluid escapes. There are a great many cystic spaces, separated by white, fibrous walls. These spaces in many places contain clear fluid. The cut surface is divided by broader fibrous bands into rounded areas, which are subdivided by thin fibrous walls. A greater part of these small alveoli are filled with soft, yellowish material, which stands above the surface like small plugs. In the centre the cysts are large and filled with fluid. The largest cystic space measures from .5 to 1 cm. A cross-section of the tumor, after it had been hardened in Kaiserling's fluid, shows that the

is rather scanty and poorly stained. The microscopical picture of this tumor is shown in Fig. 4.

The tumor is a simple papillary adenocystoma. There is no evidence of any solid growth, no suggestion of malignancy. Tumors of this type do not seem to be very common in the thyroid. Wölfler was the first to describe them carefully, and but very few authors have recognized them as a class.

Pollard has reported a case of intracystic papilloma of an accessory thyroid gland. It started as a tumor the size of a pea at the upper border of the thyroid cartilage, and in two years attained the size of a hen's egg and invaded neighboring glands. This growth showed a very little colloid in places.

FIG. 4. Papillary adenocystoma of thyroid. In upper right-hand corner a few follicles containing colloid are shown. Much of the tissue in the centre of the tumor is edematous, and the epithelial cells do not stain as deeply.

greater part of these cysts are filled with rounded papillary projections. (Fig. III.)

Microscopical examination.—The capsule is formed of dense fibrous tissue. The growth is formed almost wholly of large cysts, which are nearly filled by the very extensive papillary outgrowths from their walls. In some places these cysts are quite large, and their walls apparently broken down, and there are other parts where the follicles are small, and the papillary growth is not seen. The follicles are all lined with a single layer of apparently normal thyroid epithelial cells. There is nowhere more than one layer of these cells, and there is no interstitial proliferation of the thyroid cells. The follicles are filled with mucus or empty, except that in a very few instances there is seen a small follicle filled with rather poorly staining colloid. There is more or less edema of the stroma in places, and here one discovers that the border of thyroid epithelium

This case showed no signs of the symptoms of exophthalmic goitre. The apparent exophthalmos in one of the illustrations shown is not real and was not usually noticeable.

Among the 17 tumors of the thyroid that are included in the pathological records of the hospital, only 2 show the marked papillary type. There are 3 others that show a slight papillary proliferation. These show in some places a reduplication of the epithelial layers and often an interstitial proliferation of the thyroid cells. They all show many follicles containing colloid and areas of fairly normal thyroid tissues. One of these showed no symptoms suggestive of exophthalmic goitre; another had palpitation, tremor and twitching of the muscles, which may have been due to the very large heart with mitral insufficiency. In the third case there was exophthalmus, palpitation, tremor and nervousness, but in this case there was much more colloid than

in the others; there was more of the adenomatous and interstitial growth than is seen in the usual exophthalmic goitre.

Whether this papillary adenoma of the thyroid lies on the border line between the benign tumor and the carcinoma is not certain. In one of the cases of carcinoma of the thyroid recorded in the hospital reports, we see a solid alveolar growth, which is so bordered in places by a very marked papillary proliferation of the epithelial cells. The generally well-known fact that malignant tumors develop in a benign enlargement of the thyroid agrees with this.

The various systems of classification offered for the growths of the thyroid are not complete, and the position of this tumor remains to be settled. At least it is clinically a tumor to be removed for the sake of convenience, if not of its dangers as a malignant growth. Future study of these tumors may show their significance.

REFERENCES.

Pollard. Intracystic papilloma of accessory thyroid gland. Transactions London Pathological Society, 1876, xxxvii, 507.

Wölfler. Ueber die Entwicklung und den Bau des Kropfes. Arch. f. klin. Chir., 1883, xxiv, 1.

Medical Progress.

REPORT ON THE PROGRESS OF SURGERY.

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BOSTON.

(Concluded from No. 21, p. 575.)

RESULTS OF TRENDLENBURG'S OPERATION FOR VARICOSE VEINS.

THIS has been investigated by Dr. J. Gozes (Innsbruck), who has tabulated 26 operations, performed under local anesthesia. Suture and ligatures silk. He concludes that it is an operation comparatively free from danger, and that the results are highly satisfactory. That its effect on leg ulcers is also beneficial.

The statistics show from 76.6 to 86.2% cured. In recurrent cases the result in many cases has been caused by an anomalous vein parallel to the saphenous, or to the external saphenous emptying into the internal or long saphenous vein. To insure success the ligation should be performed as near the entrance of the saphenous vein into the femoral as possible. Five to ten cm. should be resected to give the best result. It is also recommended to investigate the venous distribution of the leg by a compression test of the long saphenous vein before operating.²¹

RESTORATION OF FUNCTION IN ANCHYLOSED JOINTS.

V. Chlumsky has made an extensive study of this subject, and his report presents the results thus far obtained fairly well. The hitherto unsuccessful results have been studied to learn the cause for failure, and it was concluded that the

method of treatment to furnish a movable joint must be based on the causative elements of a pseudo-arthritis, rather than the ordinary operative method of separating bony or fibrous adhesions, or restoring function to atrophied soft parts. Following this line, experiments have been made in Breslau and Würzburg on animals, in which the attempt has been made to produce movable joints after resection by the insertion of plates of celluloid, metal or rubber between the resected surfaces. The formations of cartilage, and the rounding off of the ends of the bone, was analogous to the results obtained in former work. The author thinks that the resulting joint cavity was smaller than in former cases. The investigation is unfinished, and the actual final results are to be subsequently reported. Enough has been demonstrated to encourage V. Chlumsky to continue his work.²²

SUBCUTANEOUS RUPTURE OF BICEPS MUSCLE.

An extensive review of this lesion has been published by Dr. Loos of Tübingen.²³ The article is an interesting one, based on personal experience in 4 cases, and a collection of 62 recorded ones.

It occurs in patients aged from 30 to 70 years. Antecedent disease, causing degenerative muscular changes, has been demonstrated as a predisposing cause in a few instances only. Severe sudden muscular action is the common immediate cause. Either direct or indirect violence causing stretching of a contracted muscle.

The site of the rupture clinically is typically in the long head, at its point of union of the tendon with the muscle belly. But anatomical experiments do not correspond with the above as regards the site of rupture.

The clinical symptoms are those usually noted; namely, the impaired function, furrow at site of lesion, etc. Attention is also called to the fact that the result of the loss of the fixation which the normal biceps exerts on the head of the humerus is displacement upwards and inwards. The hematoma is larger when the muscle is ruptured than when the tendon gives way. The defect is replaced by connective tissue, or later the muscle may regenerate, or fragments of adjoining connective tissue may be interposed.

Treatment aims to cause absorption of the blood by pressure and massage.

Acute flexion is thought to favor approximation of the separated ends. To obviate atrophy from loss of enervation in the muscle fragment, massage and electricity are employed. Operation to remove a large defect was performed only once. Time: 3 months after the rupture occurred. At the end of 4 months from the operation the functional result was reported to be perfect. In 2 cases loss of function persisted. The prognosis in general may, therefore, be considered good under appropriate treatment.

TREATMENT FOR DUPUYTREN CONTRACTION.

G. Lotheissen outlines his method of treatment of this very troublesome lesion as follows: In

²¹ Centrbl. f. Chir., 1900, xxxvii, 921-925.

²² Beitr. zur klin. Chir., Bd. xxix, H. 2.

²³ Beitr. zur klin. Chir., Bd. xxvii, H. 2.