

ANNALS OF SURGERY

A Monthly Review of Surgical Science and Practice.

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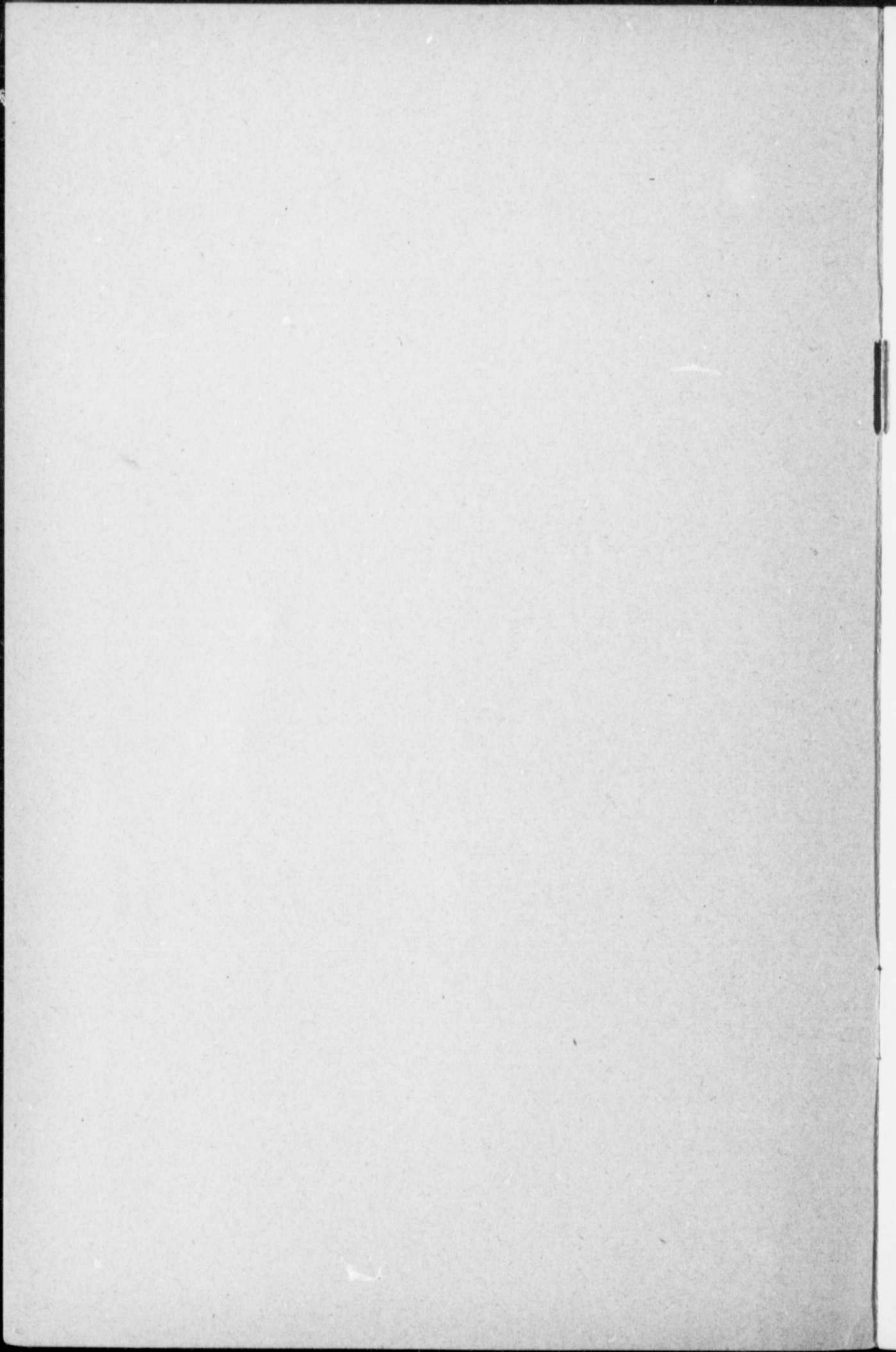
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A NOTE ON CANCER OF THE THYROID, AND ITS EXTENSION TO THE LUNGS BY MEANS OF THE BLOOD-VESSELS.

BY FRANCIS J. SHEPHERD, M.D., F.R.C.S.E. (Hon.)
 OF MONTREAL, CANADA

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**A NOTE ON CANCER OF THE THYROID, AND ITS
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**BY FRANCIS J. SHEPHERD, M.D., F.R.C.S.E. (Hon.),
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CASES of cancer of the thyroid are always undesirable to operate on. The writer has operated on many but in very few has the result been entirely satisfactory. The majority of cases have succumbed to local extension at the site of the disease; others have had no local recurrences but have died from extension to the lungs. In only one has a satisfactory result been obtained, this was operated on some ten years ago. After a second operation for recurrence the patient became myxœdematous and has been obliged to take desiccated thyroid ever since but is in good health.

In some cases the extension to the lungs is through the lymphatics, but again the transmission may be directly through the blood-vessels, as in the case reported below. This method of extension is much more common than is supposed and accounts for the rapid dissemination and termination of such cases. In the case under consideration, however, it was some years before the disease extended and for four years she continued her vocation in perfectly good health. When, however, the tumor again showed itself in the neck the growth was rapid and extension to the lungs by means of the blood-vessels quickly followed. This was strange as no glands in the neck or its neighborhood were involved, which accounts, no doubt, for the long interval of comparative health.

This case also teaches us that patients suffering from early cancer should always be operated on, for relief for a time is generally obtained. One case operated on some fifteen years ago had been under observation for a year or more, the patient steadily refusing operation. However, the growth suddenly enlarged greatly (evidently due to hemorrhage), causing great discomfort. Immediate operation showed that the sudden en-

largement was due to hemorrhages into a number of cysts in the gland. Convalescence was uninterrupted, but eighteen months later the patient began to spit blood and consolidation of the left lung was found. He died two months later of exhaustion due to extension of disease to the lungs and frequent hemorrhages. In this case there was no local recurrence and the extension of the disease was through the blood-vessels, the glands not being involved.

Case Report.—Mrs. D., aged thirty-nine, consulted the writer on January 13, 1907, for an enlargement of the thyroid, stating that the neck had been enlarged since childhood and only during the last four years had it grown to its present size. The tumor, which was solid, occupied the whole thyroid, the enlargement was as much on the right as on the left side and quite smooth. She wished to have the growth removed because she was breathless on exertion and had violent attacks of palpitation. Quite recently her voice had changed. She had a pulse of 120 but no other sign of Graves's disease, except great excitability, no exophthalmos, no tremors and no œdema of the extremities. Of late she had lost much weight. Operation, January 17, disclosed a tumor occupying chiefly the left lobe. The whole tumor was removed with great ease and she went home much relieved with the wound soundly healed in two weeks. The pathological report was carcinoma.

In August of the same year (1907) she reported herself quite well and said she could do more work than she had done for years. On January 4, 1911, she reported that the tumor had commenced to grow again on the left side and was of considerable size, though she felt little discomfort. On July 4, 1912, five years after the first operation, she again presented herself, at which time she was in great distress, breathing with difficulty and speaking only in a whisper. She had a tumor the size of an orange in the region of the thyroid, which was quite immovable. She begged for some operative relief so on January 6 an attempt was made to remove the growth. The patient was much emaciated and weak and had not been able to attend to her business for some months.

She took ether badly and there seemed to be obstruction low down, so a laryngeal tube was inserted. This gave no relief and

ether was discontinued and the skin was infiltrated with novocaine. The large mass on the left side was dissected out. The trachea was found flattened and pushed to the opposite side but the larynx itself was free from infiltration. The patient's condition was now so bad that it was decided to do nothing further; the right side was left alone as it was not pressing on the trachea and she was breathing quietly. The wound was closed and the patient removed to the ward. She died some twelve hours later.

The postmortem, which was performed by Dr. Rhea, pathologist to the Montreal General Hospital, showed the following interesting findings:

"The thyroid gland cannot be found as such; corresponding to the site of the right lobe is a large, firm, calcified mass, 6 x 4 cm. with a mass of soft tissue at the lower extremity. The trachea at this point has been displaced to the right and shows flattening on the left side. Occupying the site of the left lobe is a cavity from which a mass of tissue has been apparently removed. The tissues around the trachea are infiltrated with new growth and the phrenic and recurrent laryngeal nerves are bound down and involved by tumor tissue. The left innominate vein is enormously distended and on palpation contains a firm, irregular mass, which on opening is found to be a new growth springing from the posterior wall of the inner surface of the vein and almost occluding it.

"*Lungs.*—In the superficial portions of both lungs several firm, round nodules are felt. Upon section these are found to be small metastatic tumors. They are found mostly in the lower lobes. No thrombi could be demonstrated in the veins or arteries.

"*Microscopical Description.*—The tumor tissue is of the same character wherever found. The tissue consists of cords, groups of cells and acini, separated by a connective tissue stroma. The relative proportion of these elements varies somewhat in sections from different locations. The essential cell of the tumor is epithelial. These cells vary in size and shape, depending on the pressure to which they are subjected. The acini are small and most of them are empty, but some contain colloid material.

"Sections through the wall of the innominate vein and tumor attached to the inner surface show the following: The wall of the vein is thickened and attached to its inner surface is a mass of tissue consisting of tumor cells and stroma; mediastinum and peribronchial tissues show no tumor cells."