THYROID ADENOMA OF THE OVARY

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In dermoid cysts of the ovary, islands of thyroid tissue are occasionally observed. To these isolated nodules of thyroid tissue the name "struma ovarii" has been applied. Quite rarely, an entire tumor of the ovary is made up of thyroid tissue. Such a case, recently observed, is presented.

Mrs. R. N., a twenty-one-year-old housewife, was admitted to The Jewish Hospital of Brooklyn on Feb. 10, 1936, complaining of amenorrhea of two months' duration and frequency of micturition for one month. According to her family physician (Dr. N. Kantrow), for a period of six months in 1933 she had a slight degree of exophthalmos, sensations of heat and coldness, moist hands, and profuse sweats. Her pulse rate at that time was 120 per minute, and her blood pressure 134/70 mm. Hg. The thyroid gland was not palpably enlarged. Under treatment at home the symptoms subsided. In June 1935, a spontaneous abortion had occurred.

On admission, the patient's temperature was 100.3° F., the pulse rate 100, and the respirations 26 per minute. The blood pressure was 134/68 mm. Hg. The uterus, felt to be the size of a two months' pregnancy, appeared to be displaced upwards and forwards by a mass filling the pelvis. A laparotomy was performed on Feb. 11, 1936, at which time the uterus was found to be of a size corresponding to the second month of pregnancy. A corpus luteum of pregnancy was observed in the left ovary. The right side of the pelvis was filled by an ovarian tumor somewhat twisted on its pedicle. The tumor and the right fallopian tube were removed.

The specimen consisted of a spherical, firm, elastic mass, 11.5 X 9 X 6.5 cm., with a smooth, glistening surface; the mass replaced the ovary and was attached by the mesosalpinx to the intact fallopian tube (Fig. 1). The cut surfaces showed bands of tissue, pale or bright yellow and pink, enclosing soft, pale yellow-brown gelatinous material or fluid (Fig. 2). In microscopic preparations from various parts of the center and the periphery of the mass, loose, hyalinizing fibrous connective-tissue septa subdivided groups of acini of various size containing deep or light pink-staining colloid (Figs. 3 and 4). Some of the acini were lined by flat, others by cylindrical cells. Sheets of interacinar cells or acini with no lumina, were seen between colloid-filled acini, or imbedded in a loose fibrillar ground substance. In some areas, large lumina, lined partly by cylindrical cells, and partly by low cuboidal cells, were numerous; in others, small acini and interacinar cells prevailed. Columns of interacinar cells with large, vesicular, deep-staining nuclei, with an occasional one in a state of mitotic division, were seen in some fields. Large mononuclear cells with foamy cytoplasm and small round nuclei were present in some of the colloid-filled acini. In one of the preparations a narrow rim of thyroid tissue, with compressed acini, surrounded a large cavity filled with pink-staining colloid.

Recovery from operation was uneventful and the pregnancy was undisturbed. The patient was spontaneously delivered of a normal infant at term.

Thyroid tissue in an ovarian tumor was first reported by Bland-Sutton in 1893 (1). Six years later Gottschalk (2) described a "folliculoma ovarii," which has since been interpreted as a tumor composed of thyroid tissue. A tumor of the ovary described as an "endothelioma" by Kretschmar, in 1901,
was later interpreted by him as thyroid tissue which had "metastasized" to the ovary (3).

Since the presentation of these earlier cases, about 60 instances of "struma ovarii" have appeared in the literature. The patients have been between nineteen and fifty-seven years old, the commonest age being around forty years. The growths varied from the size of a pea to that of a child's head,

and the thyroid portion from a small fraction of the tumor to the entire growth. Pick (4) observed thyroid tissue in 6 out of 21 dermoid cysts of the ovary. Rohdenburg (5), in an examination of 500 ovarian tumors, saw 61 dermoids, of which 9 contained some thyroid tissue. From The Jewish Hospital of Brooklyn, Frankel and Lederer (6) reported 3 cases of "struma ovarii" in 1928. Among the 99 ovarian tumors examined in this laboratory between July 1, 1935, and June 30, 1936, 30 were dermoids, of which 2 contained thyroid tissue.
Figs. 3 and 4. Sections of Thyroid Adenoma of the Ovary

The growth is composed entirely of thyroid tissue with the microscopic appearance of an adenoma of the thyroid gland. \( \times 200 \).
Although it is difficult, from the data given in most of the cases previously reported, to ascertain the exact amount of thyroid tissue in the tumor, it appears certain that not more than 10 were composed exclusively of thyroid tissue, as was the one here reported. This case is remarkable, also, for the size of the growth, the lack of any but mechanical symptoms, and for its coincidence with pregnancy in a patient twenty-one years old.

**Summary**

An ovarian tumor, composed entirely of thyroid tissue, is reported in a twenty-one-year-old housewife, in her second month of pregnancy. The tumor was removed, and the pregnancy continued, uneventfully, to term.

**Bibliography**