CASE REPORT

Giant multi nodular goiter

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Abstract:
Goiter is a common endocrine abnormality. It is an enlargement of the thyroid gland. If goiter left untreated. they became giant goiter. Giant goiters are becoming increasingly infrequent because of imaging techniques. Although goiter are asymptomatic, they can compress the trachea or oesophagus and cause clinical symptoms such as dyspnea or dysphagia.

Case Report:
We present a case of a giant goiter. A 57-year-old woman consulted our clinic. She had the swelling of her neck, had rapidly progressive increase in shortness of breath and had difficulty in swallowing. The huge mass was surgically removed without complications. The pathological result of the patient reported multinodular adenomatous and hyperplastic goiter .

Keywords: Giant thyroid goiter, dyspnea, dysphagia, thyroidectomy, multinodular adenomatous, hyperplastic goiter

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Introduction:
Normal thyroid tissue has a homogeneous structure, but sometimes thyroid tissue may show nodule formation. These nodules may occur with follicles junction that is full of colloid or they may occur with less adenoma or cysts.

A 5% nodular goiter incidence is seen at non-endemic regions and 15% at endemic regions. Nodules, which are larger than 1 cm, can only be realized with palpation at physical examination.

Although these nodules are asymptomatic, they may cause symptoms when their sizes become larger. So, for the training purpose, this study aims to study a real huge nodular goiter incidence case that is rarely seen nowadays.

Case presentation:
A woman patient who was 57 years old and had swelling on her neck for 10 years consulted our hospital clinic at Armed forces Hospital. She had Bronchial Asthma. She consulted our clinic because the swelling of her neck had become larger and she had rapidly progressive increase in shortness of breath and had difficulty in swallowing. After her physical examination, bilateral mass lesions were found on her neck region that could be seen with inspection. At palpation, hard mobile mass lesions were seen, which were 15cm in diameter, on both sides of the tracheas. When the thyroid function tests of the patient were analyzed, it was seen that the thyroid-stimulating hormone was normal. At ultrasonography (USG) of the neck, bilateral thyroid gland had noticeable heterogeneous appearance, the big one, which was 45x30 mm, was seen at the right lobe and similar to the left lobe with thickened isthmus 10 mm. As a consequence of the fine-needle aspiration biopsy, which was done along with USG, it was thought that the thyroid gland of the patient, which was evaluated as a nondiagnostic nodule, was showing retrosternal extension, so the patient had a computed tomography (CT) scan of her neck done. At CT, the thyroid nodules, which blunted the trachea from the left anterior slightly and showed retrosternal extension, were realized at both the thyroid lobes. The

biggest ones measured 76x80mm on the left and 48x55mm on the right.

Besides, at thyroid scintigraphy, symptoms matching with extensive hyperplastic thyroid gland were seen. There upon, with huge multinodular goiter diagnosis, elective operation decision was taken and bilateral total thyroidectomy was performed on the patient, who had pressure complaint. There after, no post-operative development of the complication was observed, and the patient was well, could breathe well, and had no voice problem. She was discharged from the hospital on the fourth day. There were no problems at follow-ups and controls of the patient after discharge.

The pathological result of the patient reported that both the left lobe (12x6x5cm) and the right lobe (10x6x4 cm) had no evidence of malignancy .

Discussion:
Multinodular goiter is a frequent disease in society. It is reported that the frequency of the disease is up to 15% at endemic regions. Multinodular goiters may reach large sizes at endemic regions. As multinodular goiter can be asymptomatic, it can show symptoms of hyperthyroidism or hypothyroidism depending on the dysfunction of the thyroid gland. Another symptom of multinodular goiter is generating a pressure symptom as a result of the thyroid gland growth.

Especially at a retrosternal thyroid, respiratory distress occurs as a result of pressure on the trachea and swallowing difficulty as a result of pressure on the esophagus. Goiters, which cause pressure symptoms, can be generally seen with inspection.

In the present-study case, a huge nodular goiter of the patient was easily seen. As substernal goiter enlarges slowly, it occurs at the sixth decade or in later age groups. The patient in the present case took diagnosis at the age of 50, but pressure symptoms developed in the last 2 years. Tracheal pressure symptoms are seen when the tracheal diameter goes down to below 8 mm. Generally, As a result of pressure on the esophagus, swallowing difficulty and dysphagia develop, but it is rarely seen because it is at esophagus posterior.

The patient in the present study had swallowing difficulty before she had respiratory distress. A CT of the neck must be taken for patients who have retrosternal thyroid to reveal the thyroid size and its relation with other organs. It was identified that the patient in this study had nodular goiter showing retrosternal extension and blunting trachea from the left anterior slightly as a result of CT. The main indications for thyroidectomy were suspect of malignancy, pressure symptom, and cosmetic concern. If the goiter that creates pressure symptoms is cervical or substernal, surgery is indicated. Pressure symptoms are generally seen on substernal goiters. If there are no pressure symptoms, then surgical intervention for the substernal goiter becomes obvious.

Because, even if substernal huge goiters are asymptomatic, they can cause sudden respiratory distress in the event of sudden bleeding into nodule or infection. In the present case, because it was symptomatic and showed retrosternal extension, an operation was carried out and bilateral total thyroidectomy was performed. A major part of the substernal huge goiter can be taken out with cervical incision, sometimes sternotomy is also required.

In the present case, thyroidectomy was completed with Kocher's incision of 10 cm without any problem. However, goiter cases having pressure symptoms are rarely encountered. As such cases have the risk of malignancy, operations must be performed after geUng a diagnosis to prevent complicated situations.

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Muhammad Korkoman, conceived the idea, collected the data, references and wrote the article.

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