Introduction: Ectopic thyroid is a rare developmental anomaly of the thyroid gland which is defined as the presence of thyroid tissue at a site other than the pretracheal area. Nearly 1 to 3% of all ectopic thyroids are located in the lateral neck. Simultaneous submandibular ectopic thyroid tissue presenting with a functional orthotopic thyroid gland is extremely rare.

Case: A 37-year-old woman was admitted to our outpatient clinic with a cervical mass existing for three years. On physical examination, a painless, uniformly bounded, mobile, soft, nearly 3x4 cm mass was observed in the right submandibular region. A detailed systemic examination did not reveal any abnormality. Ultrasonography of the neck demonstrated a solid mass of 34x36x26 mm, including cystic areas and showing significant blood flow, localized in the right submandibular region. Her thyroid gland was in a normal location and had normal parenchyma. Thyroid function tests confirmed euthyroidism and she had no anti-thyroxinase or antithyroglobulin antibodies. Ultrasonography-guided fine needle aspiration biopsy was non-diagnostic. Cervical magnetic resonance imaging revealed a 35x41x26 mm lobulated mass showing contrast agent involvement in the right submandibular region and a normal orthotopic thyroid gland (Figure 1). The patient underwent excision of the submandibular mass under general anesthesia. The histopathological examination of the mass revealed thyroid gland tissue with nodular hyperplasia. She was symptom free and euthyroid over the next year and there was no evidence of recurrence.

Conclusion: Ectopic submandibular thyroid tissue is an extremely rare event that poses both diagnostic and management problems. However, physicians should be aware of the possibility that a submandibular mass could be ectopic thyroid tissue.

Figure 1. Cervical magnetic resonance imaging shows a lobulated mass in the right submandibular region.