

## Thyroid Metastases Arising from Colorectal Cancer

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**Introduction.** Metastatic lesions to the thyroid gland are rare, possibly due to a high oxygen and iodine environment. To highlight the possibility of cancer metastasis to thyroid gland, we are presenting a rare case of colorectal cancer spread to thyroid.

**Aim, Material and Methods.** Clinical and treatment data were reviewed including complete medical history and detailed anamnesis. Radiological and morphological methods as well as immunohistochemistry were employed to reach an evidence-based tumour diagnosis.

**Results.** A 62-year-old man was directed to a neurologist following a fall. The patient presented extensive back pain. He had had anterior rectum resection in 2012 due to rectal adenocarcinoma, followed by adjuvant chemo and radiation therapy. Small nodules were found in lungs and thoracic spine via computed tomography. Further investigation revealed an additional mass in the dura mater. The patient underwent surgery for the head metastasis and additional radiation and chemotherapy for remaining metastasis (2014). In addition, thyroid ultrasound and scintigraphy revealed multiple thyroid nodules within both lobes, yielding suspected low differentiated thyroid cancer by fine needle aspiration. Subtotal thyroidectomy with partial lymphadenectomy was performed in a two step surgery - the thyroid tumour had infiltrated surrounding tissue, radical resection was not possible. By morphology and immunohistochemistry including cytokeratins 7 and 20, CDX2, and thyroid transcription factor-1, metastatic colorectal cancer was found in thyroid and lymph nodes.

**Conclusions.** Colorectal cancer is a common neoplasm in the Western world. The metastases are frequently spread by portal system, therefore, liver is most commonly affected followed by lungs. Clinically documented colorectal cancer metastases to the thyroid are extremely rare. Multinodular goiters and adenomatous change have both been associated with an increased incidence of metastases to the thyroid gland.

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