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Abstract

Aim : To report a rare case of epidural metastasis revealing follicular thyroid cancer (FTC), to study clinical and imaging features, pathological presentation, and treatment plan.

Methods : We studied the case of a 58-year-old female patient presenting with epidural lesion unveiling FTC.

Case report : A 58-year-old woman presented the neurosurgery department with complaints of low back pain and severe right leg pain and numbness for 6 months. Hypoesthesia was noted on the right S1 dermatome during physical examination. Computed tomography showed an osteolytic heterogeneous tumor involving the S1 vertebral body.

The spinal MRI showed osteolytic lesions hypointense on T1-weighted images and heterogeneous hypo- and hyperintense on T2-weighted images with marrow replacement of the S1 vertebral body, extending into the epidural space. Lumbar biopsy was performed. Histopathological and immunohistochemistry studies confirmed the diagnosis of FTC. The patient underwent decompressive radiotherapy followed by total thyroidectomy and bilateral mediastinal-recurrent lymph node dissection. Pathological examination revealed follicular carcinoma. She was subsequently treated with iodine-131 ablation.

Conclusion : Spinal metastasis unveiling FTC is exceptionally uncommon. However, this diagnosis should be considered, particularly in cases where routine cancer screening fails to identify the primary tumor site. Furthermore, imaging modalities for thyroid evaluation should be included in the diagnostic approach

Case report

58-year-old woman presented with low back pain and severe right leg pain for 6 months.

Noted hypoesthesia on the right S1 dermatome during physical exam.

CT revealed an osteolytic tumor in the S1 vertebral body.

MRI showed osteolytic lesions with varying intensities and marrow replacement of S1.

Tumor extended into the epidural space.

Lumbar biopsy confirmed follicular thyroid carcinoma (FTC).

Patient received decompressive radiotherapy.

Underwent total thyroidectomy and bilateral mediastinal-recurrent lymph node dissection.

Pathological examination confirmed follicular carcinoma.

Adjuvant treatment included iodine-131 ablation.

Aim

To report a rare case of epidural metastasis revealing follicular thyroid cancer (FTC), to study clinical and imaging features, pathological presentation, and treatment plan.

Conclusion

Follicular thyroid cancer (FTC) is the second most common type of differentiated thyroid cancer (DTC). It is more likely to metastasize to the bone compared to papillary types, primarily through blood spread. [1] Bone involvement is seen in 6-12% of FTC cases, with the spinal column being the most affected area. [2] However, spinal metastases most often appear in the late stages, making their presence as an initial revelation of the disease extremely rare.

Methods

We studied the case of a 58-year-old female patient presenting with epidural lesion unveiling FTC.

References

[1] Kushchayeva YS, Kushchayev SV, Carroll NM, Felger EA, Links TP, Teytelboym OM, Bonichon F, Preul MC, Sonntag VK, Van Nostrand D, Burman KD, Boyle LM. Spinal metastases due to thyroid carcinoma: an analysis of 202 patients. *Thyroid*. 2014 Oct;24(10):1488-500. doi: 10.1089/thy.2013.0633. Epub 2014 Aug 1. PMID: 24921429. [2] Unterrainer M, Ilhan H, Todica A, Bartenstein P, Albert NL. Epidural Metastases From Follicular Thyroid Cancer Mimicking Meningiomas in 68Ga-DOTATATE PET. *Clin Nucl Med*. 2017 Oct;42(10):805-806. doi: 10.1097/RLU.0000000000001793. PMID: 28806249.