

## P0089 - PITUICYTOMA: A CAUSE OF CUSHING'S DISEASE

*C. Barrena López, S. Cepeda Chafla, I. Arrese Regañon and R. Sarabia Herrero*

*Hospital Universitario Río Hortega, Valladolid, Spain.*

### Resumen

**Objectives:** Pituicytoma is an extremely rare sellar and suprasellar low-grade glioma (WHO grade I) originating from the neurohypophysis or infundibulum. Most of the cases of pituicytoma described, present with signs of pituitary insufficiency because of pituitary gland enlargement, being hypogonadism the most common endocrinopathy. So, they are often misdiagnosed as pituitary adenomas. We report a rare case of pituicytoma responsible of Cushing's disease.

**Methods:** A 51-year-old woman with a severe Cushing's syndrome was referred to our department after 4 years of endocrinological evaluation. The patient presented with typical symptoms and signs of Cushing's syndrome. She suffered from osteopenia, arterial hypertension, dyslipidemia and poorly controlled diabetes mellitus. Endocrinological diagnosis confirmed pituitary-dependent Cushing's disease. MRI with contrast showed a lesion in the right posterior gland of  $4 \times 4 \times 2$  mm isointense on T1-weighted images with faint enhancement with gadolinium and slightly hyperintense on T2WI. The lesion did not increase during the 4-year follow-up by endocrinologists. The patient underwent surgery through endoscopic transsphenoidal approach. We observed a healthy hypophysis with a small lesion adjacent to the posterior pituitary lobe. Macroscopic total removal of the lesion was performed. Histological examination showed a positive glial neoplastic cellular proliferation consisting of elongated bipolar spindle-shaped cells with eosinophilic cytoplasm. The tumor expressed S100, vimentin, and TTF1. The pathological diagnosis was pituicytoma.

**Results:** Pituicytoma arises from the neoplastic transformation of pituicytes, modified glial cells localized in the posterior pituitary gland or infundibulum. However, their histogenesis is still debated with recent reports suggesting an origin from the folliculo-stellated cells of the adenohypophysis. It is also reported pituicytoma coexisting with corticotroph hyperplasia or microadenoma. This is the first report of Cushing's disease caused by pituicytoma.

**Conclusiones:** Pituicytomas are slow-growing and rare low-grade glial neoplasm. Gross total resection is the therapy of choice; however, recurrence is a possibility because of its potential for infiltration.