

## MYXOPAPILLARY EPENDYMOMA WITH EXTENSIVE LOCAL INVASION AND DISTANT DISSEMINATION – THERAPEUTIC DILEMMA

Arturs Balodis<sup>1</sup>, **Marija Zavertjajeva**<sup>2</sup>, Raimonds Mikijanskis<sup>3</sup>, Austra Breikša-Vaivode<sup>4</sup>, Inese Briede<sup>5</sup>

<sup>1</sup>*Institute of Diagnostic Radiology, Pauls Stradins Clinical University Hospital; Department of Radiology, Rīga Stradiņš University*

<sup>2</sup>*Institute of Diagnostic Radiology, Pauls Stradins Clinical University Hospital*

<sup>3</sup>*Department of Neurosurgery, Pauls Stradins Clinical University Hospital*

<sup>4</sup>*Pauls Stradins Clinical University Hospital*

<sup>5</sup>*Department of Pathology, Faculty of Medicine, Rīga Stradiņš University*

**Objectives.** Myxopapillary ependymomas (ME) are a group of glial tumours with predilection to the lumbosacral region, typically affecting males in the 4<sup>th</sup> decade of life. ME develop from the ependymal cells of the conus medullaris appearing as intradural, extramedullary mass on imaging studies. Due to slow growth and scarce clinical presentation the diagnosis of ME is often delayed, when local tissue invasion and dissemination have already occurred. Even though ME have low metastatic potential, they may exhibit aggressive and recurrent clinical course and therefore are now classified as Grade II tumours, according to the 2021 WHO classification of ependymal neoplasms.

Complete surgical resection is the therapy of choice. In case of extended dissemination adjuvant radiotherapy is recommended.

This report presents a case of a 45-year-old man with a two-year history of nonspecific lower back pain. Spine X-ray showed mild degenerative changes. Unenhanced MRI of the lumbar spine showed an intradural, extramedullary, expansive tumour at the level L1–S4 with erosion of the sacral bone and invasion of presacral tissue, that appeared hypointense on T1 and hyperintense on T2. Based on the typical localisation and growth pattern ME was suspected. Contrast enhanced MRI showed heterogeneous enhancement, typical for advanced ME. Biopsy confirmed the preliminary diagnosis. During biopsy remodelling and extreme thinning of the sacral bone was identified, with high risk of pathological fracture resulting in unstable pelvis, making partial tumour resection with laminectomy and laminoplasty necessary. Preoperative neural axis MRI showed contrast enhancing lesions in cerebellum, cervical and thoracic spine – ME metastases, therefore adjuvant radiotherapy was administered. Post-operative imaging showed gross reduction in lumbar tumour, oedema of the nerve roots. Control MRI a year after operation showed increase in residual tissue in the surgical bed as well as augmentation of size and number of metastases along the neural axis.