

Adult Oral Presentation

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CLINICAL OUTCOMES AND CHALLENGES IN PROLACTINOMA MANAGEMENT: A RETROSPECTIVE STUDY FROM PUTRAJAYA HOSPITAL

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Jen Hoong Oon, Nadiah Noor Azman, Raja Nurazni Raja Azwan, Zanariah Hussein

Institut Endokrin, Hospital Putrajaya, Putrajaya, Malaysia

INTRODUCTION

Prolactinomas showed significant variability in treatment response, with an overall display of dopamine agonist (DA) responsiveness in our cohort. This study evaluates the clinical and tumor characteristics separating DA-responsive and resistant patients in a Malaysian tertiary endocrine center.

METHODOLOGY

A retrospective analysis was done on 74 patients with prolactinoma treated between 2015 and 2025. Inclusion criteria encompassed hyperprolactinemia and MRI-documented adenomas. Clinical results were analyzed using established criteria: DA responsiveness, DA resistance, surgical remission, and long-term cure.

RESULT

Baseline characteristics revealed substantial gender differences, with male patients presenting at an older age (51.4 ± 15.0 vs 34.5 ± 9.6 years, $p < 0.001$), higher baseline prolactin levels ($72,274.9 \pm 100,505.4$ vs $7,105.9 \pm 9,152.7$ mIU/L, $p = 0.005$), and larger tumor size (25.1 ± 16.8 vs 11.5 ± 8.5 mm, $p = 0.002$). Male patients generally presented with more aggressive disease features and greater tumor invasiveness, including increased cavernous sinus invasion (57.1% vs 22.6%, $p = 0.0098$) and optic chiasm compression (52.4% vs 7.5%, $p = < 0.001$). When comparing treatment response, DA-resistant tumors revealed clinically relevant patterns, including higher baseline prolactin levels (median 9,642 vs. 4,111 mIU/L, $p = 0.090$) and more frequent cavernous sinus invasion (60% vs. 31.8%, $p = 0.207$). Dopamine agonist resistance rates were similar between genders. The sample demonstrated 89.2% total DA response, with comparable long-term cure rates (31.1% overall), albeit male patients required much higher doses of hormonal replacement therapy (57.1% vs. 3.8%, $p < 0.001$).

CONCLUSION

Our findings demonstrate that prolactinomas in males typically present later in life, are more aggressive and larger, and have a higher prolactin level, but the overall DA response remains good. Despite increased baseline prolactin and invasiveness in males, DA responsiveness was similar between genders. The long-term outcomes were positive, albeit more males required hormone replacement. These findings demonstrate that DA remains as effective first-line therapy for prolactinomas.