

## C-46

# Symptom and Quality Of Life Impairments in Cushing's Disease Before and After Endoscopic Transsphenoidal Surgery



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**BACKGROUND:** Prolonged exposure to hypercortisolism in Cushing's disease (CD) is associated with a diverse panel of symptoms and comorbidities, leading to impairments in quality of life (QOL). The progression of symptoms and QOL across the treatment trajectory has not been well-described in CD patients treated with endoscopic transsphenoidal surgery (ETSS).

**METHODS:** 75 patients with confirmed CD (61 female and 14 male; mean age  $42.2 \pm 13.8$  years) were evaluated before and after curative ETSS using four validated measures: a 43-item pituitary symptom checklist, generic SF-36, CD-specific QOL-CD, and depression-specific CES-D. 103 patients with a non-functioning pituitary adenoma (76 female and 27 male; mean age  $48.9 \pm 15.1$  years) served as controls. We then analyzed the changes in symptoms and QOL scores before and after ETSS within the CD group and compared the scores against the controls.

**RESULTS:** A greater symptom burden was observed in CD patients than controls, particularly across the dermatologic, cognitive, neurologic, psychiatric, metabolic, appearance-related, and non-specific domains. ETSS had minimal symptom-alleviating effect in CD patients, and most symptoms persisted after ETSS ( $2.9 \pm 2.1$  months) despite biochemical cure. Across all measures, CD patients reported a significantly worse QOL than controls before and after ETSS ( $p < 0.05$ ). In CD patients, QOL scores deteriorated leading up to ETSS. QOL scores improved marginally after ETSS in general health perceptions, physical functioning, and limitations due to emotional health, but remained stagnant across other domains. During the remission period, QOL scores remained impaired, but continued to improve toward baseline levels.

**CONCLUSION:** Symptom burden and QOL remain impaired compared to controls despite biochemical remission, with gradual improvements occurring slowly over time. This study highlights the need for additional physical and psychological resources for CD patients undergoing ETSS.

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