

Devuyst F et al. Central diabetes insipidus and pituitary stalk thickening in adults: distinction of neoplastic from non-neoplastic lesions. Eur J Endocrinol. 2020;181(3):95-105. doi: 10.1530/EJE-20-0058.

CONTEXT: Association of central diabetes insipidus (CDI) and pituitary stalk thickening (PST) may have several etiologies (including malignancies) and differential diagnosis remains often difficult.

OBJECTIVE: The purpose of this study was to identify which clinical, biochemical or radiological features could help clinicians to make an etiological diagnosis, especially distinguishing neoplastic from non-neoplastic pituitary stalk lesions.

DESIGNS AND METHODS: We retrospectively analyzed clinical, biochemical, radiological and histological data of 38 adult patients diagnosed with CDI and PST of proven etiology.

RESULTS: Of the 38 pituitary stalk lesions included, 11 (29%) were neoplastic. A histopathological diagnosis was obtained in 22/38 (58%) patients. The three most frequently observed etiologies of PST were neuroinfundibulitis (34%), germinoma (21%) and histiocytosis (18%). Pituitary stalk thickness was larger for neoplastic lesions, particularly germinomas. Male gender and a very young age were statistically associated with a risk of germinoma. At least one anterior pituitary deficit was observed in nearly 60% of patients. Patients with neoplastic PST were more affected by multiple anterior pituitary dysfunction than patients with benign PST. A high serum prolactin level was individually the best predictor of a neoplastic origin (90% sensitivity and 60% specificity for a serum prolactin level 1.27-fold above the normal upper limit (ULN)).

CONCLUSION: We confirm a relatively high risk of malignancy in adult patients presenting with the association of CDI and PST. Young age, male gender, a very large thickening of the stalk, multiple anterior pituitary deficits and prolactin above 1.3× ULN increase the likelihood of a neoplastic origin.