

13 (31.0%) were obese, and the proportion of patients with impaired fasting glucose (≥ 100 mg/dL), high triglycerides (≥ 150 mg/dL), low high-density lipoprotein (HDL) cholesterol (male, < 40 mg/dL; female, < 50 mg/dL), and hypertension (systolic blood pressure ≥ 130 mmHg or diastolic blood pressure ≥ 85 mmHg) was 5 (11.9%), 18 (42.9%), 24 (57.1%), and 5 (11.9%), respectively. When multivariate-adjusted models were constructed including age, sex, postoperative duration, extent of HI, duration of GH discontinuation, and family history of cardiovascular disease, the extent of HI was significantly predictive for increased body mass index z-score ($\beta = 1.27$, $P = 0.017$), fasting insulin levels ($\beta = 7.1$, $P = 0.049$), HOMA-IR ($\beta = 1.61$, $P = 0.020$), and decreased HDL cholesterol levels ($\beta = -9.9$, $P = 0.012$). GH discontinuation more than 6 months was significantly associated with decreased

HDL cholesterol levels ($\beta = -10.23$, $P = 0.026$). **Conclusion:** In this study, impaired fasting glucose or hypertension accounted for one-tenth, and dyslipidemia was detected in more than half of childhood-onset CP patients with GH deficiency at the time of GH retesting. The more extensive HI and the longer duration of GH discontinuation were associated with increased risk of metabolic disturbance during the transition period.

Neuroendocrinology and Pituitary NEUROENDOCRINOLOGY AND PITUITARY CLINICAL ADVANCES

Trauma Symptomatology in Patients Successfully Treated for Pituitary Adenoma

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The emotional symptomatology accompanying pituitary adenomas has long been recognized, though research has been scant, varied, and more focused on studies related to quality of life. The present study sought to better codify the psychological presentation of pituitary adenoma patients through the lens of trauma and PTSD symptomatology. 128 patients who were successfully treated for pituitary adenoma were recruited from the Wexner School of Medicine at Ohio State University. Ranging in age from 23 to 74, the participants' mental health functioning was assessed by the Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5), the Brief Symptom Inventory (BSI), and the Dissociative Experiences Scale (DES). The findings of this pilot study showed that the rate of traumatization (PTSD) for pituitary adenoma patients was significantly higher than that of the general population. With regard to comorbid trauma-related mental health impairment, our results demonstrated that when moderated by sex, pituitary adenoma patients had significantly higher psychopathology than the non-clinical population. Replicating the existing research, there was a significant positive correlation between trauma symptoms and trauma-related psychopathology in patients successfully treated for pituitary

adenoma. Overall, the results of this study demonstrate the traumatic nature of this disease and the need for applied clinical intervention. Further research is needed to replicate these findings, in light of potential selection bias and sample size.

Neuroendocrinology and Pituitary NEUROENDOCRINOLOGY AND PITUITARY CLINICAL ADVANCES

Validity of Different Copeptin Assays in the Differential Diagnosis of the Polyuria-Polydipsia Syndrome

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Background: Copeptin is used in the differential diagnosis of diabetes insipidus. Different copeptin immunoassays exist but inter-assay comparability is unclear. The aim of this study was to correlate three commercially available copeptin assays and their diagnostic accuracy in the differential diagnosis of the polyuria-polydipsia-syndrome.

Methods: Analyzed data include three different studies: repeated copeptin measures of 8 healthy volunteers undergoing osmotic stimulation; copeptin measures of 40 patients hospitalized with pneumonia; osmotically stimulated copeptin measures of 40 patients with polyuria-polydipsia-syndrome. Copeptin was measured using the automated B.R.A.H.M.S. KRYPTOR, the manual B.R.A.H.M.S. LIA and the manual Cloud Clone ELISA assay. Primary outcome was the diagnostic accuracy in the polyuria-polydipsia-syndrome.

Results: In total, 150 copeptin measurements were analyzed. In healthy volunteers, there was a moderate correlation for the KRYPTOR and LIA (interrater correlation coefficient (ICC) 0.74; 95%-CI 0.07-0.91), and a poor correlation for the KRYPTOR and ELISA (ICC 0.07; 95%-CI -0.06-0.29), as for the LIA and ELISA (ICC 0.04; 95%-CI -0.04-0.17). The KRYPTOR had the highest diagnostic accuracy (98% (95%-CI: 83-100)), comparable to the LIA (88% (95%-CI: 74-100)), while the ELISA had a poor diagnostic accuracy (55% (95%-CI: 34-68)) in the differential diagnosis of the polyuria-polydipsia-syndrome.

Conclusion: The KRYPTOR and LIA yield comparable copeptin levels and a high diagnostic accuracy, while the ELISA correlates poorly with the other two assays and shows a poor diagnostic accuracy between polyuria-polydipsia patients. Redefining cut-off levels for copeptin assays other than KRYPTOR and LIA must take place before their use in the differential diagnosis of diabetes insipidus.