

## 論 文 要 旨

Investigation of the clinical significance of the growth hormone-releasing peptide-2 test  
for the diagnosis of secondary adrenal failure

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The aim of this study was to evaluate the ability of the growth hormone-releasing peptide-2 (GHRP-2) test to clinically diagnose hypothalamo-pituitary-adrenal (HPA) axis failure. We performed an insulin tolerance test (ITT), CRH stimulation test, and GHRP-2 test on 47 patients suspected of having a hypothalamo-pituitary disorder. Patients with pituitary disorders had significantly lower ACTH responses to the GHRP-2 test compared to patients with hypothalamic disorders and the control group. In contrast, peak cortisol levels in response to the GHRP-2 test were significantly lower in both hypothalamic and pituitary disorder cases compared with the control group. Assignment of a cut-off value of 11.6  $\mu\text{g}/\text{dL}$  for the peak serum cortisol level demonstrated that the GHRP-2 test was able to predict secondary hypoadrenalism with 88.9% specificity and 89.7% sensitivity. The responses of ACTH and cortisol to the GHRP-2 test had no correlation to the CRH test, suggesting the involvement of a different mechanism of ACTH secretion. These results indicate that the GHRP-2 test may induce ACTH secretion from the pituitary gland through direct stimulation. Although the GHRP-2 test does not have the same predictive value as the insulin tolerance test (ITT), it has similar diagnostic potential as the CRH stimulation test for evaluating HPA axis failure.