# Hydrocortisone

Hydrocortisone (INN, USAN, BAN) is a name for cortisol when it is used as a medication. Hydrocortisone is used to treat people who lack adequate naturally generated cortisol.

see Cortisol

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Patients undergoing surgical resection of pituitary neuroendocrine tumors are frequently given perioperative glucocorticoid therapy. There are no randomized controlled studies assessing the need for such steroids; however, several studies have documented changes in the hypothalamic-pituitary-adrenal (HPA) axis associated with pituitary surgery. Based on the evidence available, this article details recommendations for the perioperative management of glucocorticoid therapy in patients with pituitary tumors. For patients with proven ACTH deficiency preoperatively [usually based on response to a short ACTH 1-24 (Synacthen) test], 48 hours of supraphysiological glucocorticoid therapy should be administered perioperatively (e.g. hydrocortisone, 50 mg every 8 hours on day 0, 25 mg every 8 hours on day 1, and 25 mg at 0800 h on day 2). For patients with intact HPA function preoperatively, and in whom selective adenomectomy is possible, perioperative glucocorticoids are not necessary. Early postoperative assessment depends on daily clinical assessment of the patient and 0800 h plasma cortisol levels. Cortisol levels over 450 nM (16 microg/dl) reflect normal HPA function, and levels less than 100 nM (3.6 microg/dl) are consistent with ACTH deficiency. Cortisol levels between 100 and 250 nM (3.6-9 microg/dl) may be ACTH deficient and should receive morning hydrocortisone replacement until definitive HPA axis testing. Cortisol levels between 250 and 450 nM (9-16 microg/dl) are unlikely to be ACTH deficient but should receive additional steroids for stress until a definitive test is performed. For those requiring definitive testing, the insulin tolerance test, the overnight metyrapone test, or the glucagon stimulation test are appropriate and may be performed as early as d 7-10 or, if more convenient, wk 4-6. Following the guidelines suggested here should reduce the use of unnecessary glucocorticoids, while ensuring the safety of patients is not compromised [1)]

1)

Inder WJ, Hunt PJ. Glucocorticoid replacement in pituitary surgery: guidelines for perioperative assessment and management. J Clin Endocrinol Metab. 2002 Jun;87(6):2745-50. doi: 10.1210/jcem.87.6.8547. PMID: 12050244.