

CUSHING'S POSTOPERATIVE MANAGEMENT

Dr. Friedman sees many patients for Cushing's syndrome who have questions about cortisol replacement and how they should be monitored after undergoing pituitary surgery for Cushing's disease. It was classically taught that patients with Cushing's disease have consistently high ACTH levels before their surgery that leads to high cortisol levels and that causes suppression of their normal pituitary corticotroph cells, the cells that make ACTH. Therefore, when the pituitary tumor is removed, the ACTH and subsequently, cortisol levels, are quite low, and this would indicate a cure from pituitary Cushing's disease following surgery. However, Dr. Friedman has more recently seen in a lot of patients who have what is described as either episodic or mild Cushing's in which the cortisol levels are not that high preoperatively, and sometimes only intermittently high. This does not allow the normal pituitary corticotroph cells to become quiescent and therefore, postoperatively, the cortisol levels are often not that low.

Dr. Friedman checks a postop 8:00 AM cortisol on day 5 after surgery of which the patient is told to withhold their hydrocortisone replacement for at least 24 hours prior to testing. Therefore, if the patient is started by the surgeon on hydrocortisone after surgery and they are scheduled for a blood draw on, for example a Monday morning, they should take their Sunday morning dose of cortisol but not their Sunday afternoon dose, not take their Monday morning dose, and then get their blood draw for cortisol and ACTH and electrolytes, and then restart their hydrocortisone after their blood draw. The lower the cortisol after surgery, the better it is in terms of a cure, but Dr. Friedman has had many patients who have been cured from this mild or episodic Cushing's disease with a relatively normal cortisol. Most patients Dr. Friedman sees have a cortisol between 10 and 15 around on day 5 postop. A cortisol level of about 20 is probably a bad sign and suggest the patient is not going to be cured.

Dr. Friedman will judge a cure from Cushing's disease based on the postoperative cortisol levels, the pathology reports, as well as improvement in signs and symptoms. Unfortunately, the pathology reports are not that accurate in Cushing's disease, either because a tumor is missed or because in this episodic Cushing's disease, a discrete tumor is not formed but rather, the pathology is often hyperplasia. Thus, a negative pituitary pathology does not exclude that the patient really did have Cushing's disease and is cured.

Following successful cure of Cushing's syndrome, the patient's cortisol will be relatively lower than it was preoperatively. Therefore, Dr. Friedman puts all patients on cortisol replacement following surgical removal of a Cushing's disease tumor. He usually gives patients between 20 mg and 25 mg of hydrocortisone and then will taper this down over the next couple of months. The lower the postoperative cortisol level is, the longer it usually takes to taper down but also the more likely it is for the patient to be cured. Dr. Friedman considers a successful surgery one

in which the patient has a lot of signs and symptoms of low cortisol including achiness, nauseousness, and feeling tired. These are mostly good signs and do not necessary require an increased level of cortisol replacement.

Most patients do fine following removal of their pituitary surgery, and adrenal crisis is rare. Dr. Friedman does not see a need for patients who have pituitary surgery for Cushing's disease to get a medical alert bracelet. He does prescribe Solu-Cortef in case of adrenal crisis, but this is rarely used. The main instance in which solucortef is needed is if the patient has a stomach flu and can not keep their cortisol pills down without vomiting.

Following pituitary surgery for Cushing's disease, Dr. Friedman usually will request a postoperative appointment approximately 2 weeks after surgery to review the postoperative cortisol levels, pathology, and symptoms. To find out more about Dr. Friedman and his endocrinology clinic, go to www.goodhormonehealth.com.