Advice for PWCs Anticipating Anesthesia or Surgery

7421 Carmel Executive Park Drive, Ste 320, Charlotte NC 28226
Charles W. Lapp, MD
Hunter-Hopkins Center, P.A.
Telephone (704) 543 9692 Facsimile (704) 543 8547

RECOMMENDATIONS FOR PERSONS WITH CHRONIC FATIGUE SYNDROME (OR FIBROMYALGIA) WHO ARE ANTICIPATING SURGERY

CFS is a disorder characterized by severe debilitating fatigue, recurrent flu-like symptoms, muscle pain, and neurocognitive dysfunction such as difficulties with memory, concentration, comprehension, recall, calculation and expression. A sleep disorder is not uncommon. All of these symptoms are aggravated by even minimal physical exertion or emotional stress, and relapses may occur spontaneously. Although mild immunological abnormalities (T-cell activation, low natural killer cell function, dysglobulinemias, and autoantibodies) are common in CFS, subjects are not immunocompromised and are no more susceptible to opportunistic infections than the general population. The disorder is not thought to be infectious, but it is not recommended that the blood or harvested tissues of patients be used in others.

Intracellular magnesium and potassium depletion has been reported in CFS. For this reason, serum magnesium and potassium levels should be checked pre-operatively and these minerals replenished if borderline or low. Intracellular magnesium or potassium depletion could potentially lead to cardiac arrhythmias under anesthesia.

Up to 97% of persons with CFS demonstrate vasovagal syncope (neurally mediated hypotension) on tilt table testing, and a majority of these can be shown to have low plasma volumes, low RBC mass, and venous pooling. Syncope may be precipitated by cathecholamines (epinephrine), sympathomimetics (isoproterenol), and vasodilators (nitric oxide, nitroglycerin, (-blockers, and hypotensive agents). Care should be taken to hydrate patients prior to surgery and to avoid drugs that stimulate neurogenic syncope or lower blood pressure.

Allergic reactions are seen more commonly in persons with CFS than the general population. For this reason, histamine-releasing anesthetic agents (such as pentothal) and muscle relaxants (curare, Tracrium, and Mevacurium) are best avoided if possible. Propofol, midazolam, and fentanyl are generally well-tolerated. Most CFS patients are also extremely sensitive to sedative medications — including benzodiazepines, antihistamines, and psychotropics — which should be used sparingly and in small doses until the patient's response can be assessed.

Herbs and complementary and alternative therapies are frequently used by persons with CFS and FM. Patients should inform the anesthesiologist of any and all such therapies, and they are advised to withhold such treatments for at least a week prior to surgery, if possible. Of most concern are garlic, gingko, and ginseng (which increase bleeding by inhibiting platelet aggregation); ephedra or ma huang (may cause hemodynamic instability, hypertension, tachycardia, or arrhythmia), kava and valerian (increase sedation), St. John's Wort (multiple pharmacological interactions due to induction of Cytochrome P450 enzymes), and Echinacea (allergic reactions and possible immunosuppression with long term use). The American Society

of Anesthesiologists recommends that all herbal medications be discontinued 2-3 weeks before an elective procedure. Stopping kava may trigger withdrawal, so this herbal (also known as awakawa, and intoxicating pepper) should be tapered over 2-3 days.

Finally, HPGA Axis Suppression is almost universally present in persons with CFS, but rarely suppresses cortisol production enough to be problematic. Seriously ill patients might be screened, however, with a 24 hour urine free cortisol level (spot or random specimens are usually normal) or Cortrosyn stimulation test, and provided cortisol supplementation if warranted. Those patients who are being supplemented with cortisol should have their doses doubled or tripled before and after surgery.

SUMMARY RECOMMENDATIONS

- Insure that serum magnesium and potassium levels are adequate
- Hydrate the patient prior to surgery
- Use catecholamines, sympathomimetics, vasodilators, and hypotensive agents with caution
- Avoid histamine-releasing anesthetic and muscle-relaxing agents if possible
  Use sedating drugs sparingly
- Ask about herbs and supplements, and advise patients to taper off such therapies at least one week before surgery
- Consider cortisol supplementation in patients who are chronically on steroid medications or who are seriously ill.

[1]Relapses are not uncommon following major operative procedures, and healing is said to be slow but there is no data to support this contention.

I hope that you have found these comments useful, and that they will serve to reduce the risk of surgical procedures.

Yours truly,

Charles W. Lapp, MD

Director, Hunter-Hopkins Center
Assistant Consulting Professor at Duke University Medical Center
Diplomate, American Board of Internal Medicine
Fellow, American Board of Pediatrics
American Board of Independent Medical Examiners

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