

Medical Writers' Circle

a series of articles

written by medical
professionals about
the management
and treatment of

Hepatitis C

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Hepatitis C - Managing the Side Effects

Hepatitis C, a virus affecting approximately 3 million Americans, can now be treated leading to a permanent cure and prevention of hepatocellular carcinoma and cirrhosis (end-stage liver disease). Scientific advances, alpha b and consensus interferons (chemicals that stimulate the body's defenses) were followed by interferon and ribavirin (an anti-viral agent) and now pegylated interferon (slow absorbing interferon) and ribavirin. Unfortunately, along with success comes a heavy price of side effects and complications associated with therapy. In addition, many of these side effects are superimposed upon the preexisting fatigue, depression, nausea and myalgias (muscle aches) that already plague the hepatitis C victim.

The most serious problems for the doctor involved with hepatitis C treatment are changes in the hematologic (blood) system. Interferon is a known suppressor of the red blood cell count (causing anemia), the white cell blood count (predisposing to infection), and the platelets (cells responsible for clotting). Unfortunately, many of these patients, particularly if they have advanced liver disease (cirrhosis), already have these problems. In the past, dose reductions of these medicines was needed, making treatment less effective. In 1999, Brass and Piken reported the first successful attempts at decreasing the hemolysis

(red cell damage) caused by ribavirin by using the antioxidants vitamin E and vitamin C. Subsequent larger trials are in place to verify and optimize the treatment regimen. During the past year, Dietrich and Sulkowski reported successful management of the anemia precipitated by both drugs using Epoetin (red cell bone marrow stimulant). This treatment is highly successful, but very expensive. Similar strategies using Neupogen (white cell stimulant) and interleukin-11 (platelet stimulator) are currently being tested.

In terms of patient's discomfort and difficulty, treatment may cause depression, headaches, anxiety, insomnia and muscle aches. The depression can be serious and possibly even suicidal. Muscle aches are treated with Tylenol and NSAIDs (anti-inflammatories) provided there are no contraindications for these drugs. Patients are urged to keep themselves well hydrated and I personally forbid heavy weightlifting and long distance running. Daily jogs to three miles are permitted.

Headaches can be troublesome. Tylenol again can be useful. Recently, a drug called Neurontin (frequently used in neurologic disorders), has been advocated in refractory cases.

Depression and anxiety often become the most troublesome problems for the patient, particularly in patients with preexisting problems. A history of manic-depression and severe endogenous

depression frequently call for prophylaxis evaluation by attending psychiatrists and frequent pre-treatment medication prior to onset of therapy. Interferon reduces neuroreceptor signals, dopamine release and perhaps neuroendocrine release leading to a depression that may occur in up to 50% of the patients. Tricyclics and SSRIs (two classes of antidepressants) can be extremely helpful. Use of anti-anxiety medications or even mild stimulants like Ritalin can be used in adjunctive therapy to support the antidepressants. Coexisting insomnia best responds to a high protein diet, light exercise and elimination of naps in combination with the treatment for depression and anxiety that frequently underlies the insomnia.

Skin rashes frequently occur during treatment and are usually caused by an allergic reaction to ribavirin. They respond to dose reductions and topical anti-steroids. Psoriasis, a common skin problem, will frequently flare during treatment and must be monitored and treated by a dermatologist.

Hypothyroidism and hyperthyroidism, pancreatitis, autoimmune disorders, sarcoidosis and retinitis (an irritation of the retina in the eyes) are rare, but reported complications of therapy. The treating specialist is aware of these possibilities and patients are monitored for these problems on a regular basis.