

CORTICOSTEROIDS

Medical treatment for Crohn's disease and ulcerative colitis has two main goals: *achieving* remission (the absence of symptoms) and, once that is accomplished, *maintaining* remission (prevention of flare-ups). To accomplish these goals, treatment is aimed at controlling the ongoing inflammation in the intestine—the cause of IBD symptoms.

Corticosteroids (often referred to simply as steroids but are not to be confused with body-building “steroids”) were first introduced as therapy for IBD in the 1950s. Since that time, these powerful and fast-acting anti-inflammatory drugs have been the mainstay of treatment for acute flare-ups of disease. Most patients notice an improvement in symptoms within days of starting corticosteroids. In addition to their anti-inflammatory action, corticosteroids also are immunosuppressive. That means they decrease the activity of the immune system, which experts believe may be out of control in people with IBD. As a result, they may make certain individuals more susceptible to catching infections.

Corticosteroids closely resemble cortisol, a hormone naturally produced by the body's adrenal glands. This group of medications is available in oral, rectal, and intravenous (IV) forms. When people take corticosteroids, their adrenal glands stop producing or slow down the production of normal cortisol.

In general, corticosteroids are recommended only for short-term use in order to achieve remission. As valuable as they are in acute situations, corticosteroids are not effective in preventing flare-ups and therefore are rarely used for maintenance therapy in IBD. In addition, long-term use is not advised because of undesirable side effects. For that reason, corticosteroids are usually given in the lowest possible dosage for the shortest amount of time. *Frequent* short-duration use, however, is not recommended.

ORAL MEDICATIONS

In people with moderate to severe active disease, corticosteroids in pill form are usually effective. These include:

- prednisone (Deltasone®)
- methylprednisolone (Medrol®)
- hydrocortisone

The drugs may be used alone or together with aminosalicylate (5-ASA) drugs to reduce acute inflammation.

BUDESONIDE

One of the latest oral corticosteroids is budesonide (Entocort® EC), used to treat mild-to-moderate Crohn's disease involving the end of the small intestine (the ileum) and/or the first part of the large intestine (the cecum and ascending colon). Representing a new class of corticosteroids called *nonsystemic steroids*, it targets the intestine rather than the whole body. Because 90% of the drug is inactivated before it reaches the rest of the body, it causes fewer side effects than traditional corticosteroids such as prednisone. Side effects include headache, respiratory infection, and nausea, among other corticosteroid-associated side effects.

ALTERNATIVE METHODS OF DELIVERY

For people who do not respond to oral forms of the drugs, it may be necessary to administer corticosteroids through other routes. These include:

- **RECTALLY AS ENEMAS (HYDROCORTISONE, METHYLPREDISONE, CORTENEMA®), FOAMS (HYDROCORTISONE ACETATE, PROCTOFOAM-HC®), AND SUPPOSITORIES.** These preparations are helpful for patients with mild-to-moderate ulcerative colitis that is limited to the rectum or lower part of the colon. They also may be used, together with other therapies, in people with mild-to-moderate disease near the rectum or with more widespread disease that starts at the rectum.

- **Intravenously (IV):** methylpredisone and hydrocortisone. Patients with severe and extensive disease may require treatment with IV corticosteroids.

SIDE EFFECTS

The undesirable side effects of corticosteroids are dependent on both dose and duration of treatment. For many, the side effects of steroids outweigh their anti-inflammatory benefits. Some of the most common ones include the following:

- high blood pressure (hypertension)
- rounding of the face (“moon face”)
- increased risk of infection
- weight gain
- acne
- mood swings
- psychosis and other psychiatric symptoms
- increased facial hair
- cataracts
- stretch marks
- high blood sugar levels
- weakened bones (osteoporosis)
- insomnia (difficulty sleeping)

Because of these side effects, doctors frequently choose safer medications, such as the 5-ASA drugs and antibiotics, as initial therapy. But there are a number of ways to reduce the risk of developing side effects. These include rapid but careful tapering off of steroids; alternate-day dosing; rectally applied corticosteroids; and rapidly metabolized corticosteroids such as budesonide (described above). To help prevent osteoporosis, many doctors routinely prescribe calcium supplements as well as multivitamins that contain vitamin D. Another option is the use of bisphosphonates, such as risedronate (Actonel®) and alendronate (Fosamax®). These compounds, which have been shown to help avert bone loss, are effective in treating and preventing steroid-induced osteoporosis.

DRUG INTERACTIONS

People taking several different medicines, whether prescription or over-the-counter, should always be on the lookout for interactions between drugs. Drug interactions may decrease a medication’s effectiveness, intensify the action of a drug, or cause unexpected side effects. Before taking any medication, read the label carefully. Be sure to tell your doctor about all the drugs you’re taking (even over-the-counter medications or complementary therapies) and any other medical condition you may have.

SPECIAL CONSIDERATIONS

- Because corticosteroids cause the adrenal glands to slow or stop the production of cortisol, they cannot be discontinued abruptly. It takes some time for the adrenal glands to begin producing cortisol again. Gradually tapering the dose of corticosteroids allows the body to begin producing its own supply of cortisol again.
- Twenty to 30 percent of patients with acute symptoms of IBD will not respond to corticosteroids.
- Thirty to 40 percent of patients with moderate-to-severe IBD have steroid-dependent disease. That means that they are unable to taper off steroids without experiencing a flare-up.
- Corticosteroids are one of the oldest treatments available for IBD, but many newer drugs are now available. Be sure to talk to your doctor to learn all you can if you are prescribed steroids, and review what other options may be available to you once your symptoms are brought under control.

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