

Analyzing the risks & benefits of the treatment of Ulcerative Colitis

BENEFITS



RISKS associated with medications

- Prior estimates of the need for colectomy in UC patients have approached 50%. The advent and use of newer therapies have resulted in much lower 5, 10 and 15 year colectomy rates among UC patients (7.5%, 10.4% and 14.8%, respectively).
- Medications used in the treatment of UC, such as thiopurines and 5-ASA agents, have also been associated with a reduced incidence of advanced colonic neoplasia and colorectal cancer, potentially through reducing inflammation (in some studies 10X less risk and 2X less risk respectively).
- Immunosuppressive agents have also been shown to improve quality of life in individuals with IBD, and often restore health perception to normal.

5-Aminosalicylates (5-ASA): used for the induction and maintenance of remission in UC.

- Minimal adverse events: pancreatitis (1/million days) or kidney irritation (26/10,000 patients).
- No known infectious or malignant complications.

Thiopurines: used as corticosteroid-sparing agents for maintenance of remission in treatment of UC.

- Adverse events: allergic-mediated response within 2-4 weeks of starting thiopurines.
- Possible symptoms: flu-like illness, malaise, fevers, nausea, rash, abdominal pain, pancreatitis, liver irritation.
- Can cause lower white blood cell counts in 2.2-15% of cases.
- Infectious complications can occur 7.4% of patients (similar to the rate in a control population).
- Malignancy risk is thought to be limited to increased risk of lymphoma (4/10,000 versus 2/10,000 in the general population) and non-melanoma skin cancer (NMSC). Risk is 6/10,000 for combined thiopurine and anti tumor-necrosis factor (anti-TNF).

Cyclosporine: used for induction of remission in individuals with severe UC, either via intravenous infusion or orally. Used for those who have failed to obtain remission after corticosteroid therapy.

- Numerous reported side effects: renal insufficiency, tremor, electrolyte disturbances, and fever. Adverse events reported >50% in on study of cyclosporine.
- In some reports, up to 5% of individuals experienced serious infection. Opportunist infections have been reported.
- As cyclosporine is used for short-term therapy, no specific increased malignancy risk is tied to this medication. Lymphoproliferative disorders have been tied to cyclosporine in combination with other immunosuppressants with long-term use in transplant recipients.

Biologic anti-TNF agents: Infliximab approved: Used for induction and maintenance of remission.

- Generally well tolerated. Only rare reports of abnormal liver function, reduced blood counts and allergic syndromes.
- Increased infectious and malignant complications have been associated with infliximab.
- Associated with reactivation of tuberculosis or hepatitis B if patient has been previously exposed; screening for latent infections if recommended.
- Not associated with any increased infection-related mortality.
- Linked to certain malignancies, in particular, an increased lymphoma risk.
- Has been associated with increased NMSC risk in patients with IBD, with increased risk as time of use increases.

Corticosteroids: Long been the mainstay of therapy for induction of remission of UC.

- Quite effective over short-term- have numerous adverse effects and infectious risks when used over long-term.
- Risks include: cardiac, renal, skin, gastrointestinal, endocrine, psychiatric, musculoskeletal, immunologic and ophthalmic complications. Particularly important in children is corticosteroid-induced growth suppression.
- High dose and long-term Prednisone use has been associated with increased mortality. This is why it is so important to use other medications to control symptoms over the long-term.
- Infectious risks are particularly important as corticosteroids have been independently associated severe infections in the IBD population. Increased herpes zoster risk and over 3-fold increased pneumonia risk in IBD patients.
- Dose-dependent increase in infections associated with corticosteroid use.
- Prednisone use has also been associated with increased mortality.

CONCLUSION

While there are numerous potential risks associated with the medications to treat UC, their chance in occurring is fairly low and they are likely to have a beneficial effect.