

Efficacy of Early Treatment with Infliximab in Pediatric Crohn's Disease

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Crohn's disease is an inflammatory disease of the intestines that may affect any part of the gastrointestinal tract from mouth to anus, causing a wide variety of symptoms. Crohn's disease is thought to be an autoimmune disease, in which the body's immune system attacks the gastrointestinal tract, causing inflammation. The exact cause of Crohn's disease is still unknown; a combination of environmental factors and a genetic predisposition seems to cause the disease.

Infliximab is a monoclonal antibody against TNF α , used to treat autoimmune diseases. Infliximab works by binding to tumour necrosis factor alpha (TNF α), is a chemical messenger and a key part of the autoimmune reaction. Infliximab was introduced for the treatment of moderate to severe Crohn's disease. The efficacy of infliximab suggests that early induction with intensive therapy may reduce complications may improve the quality of life.

Forty-three patients confirmed to have Crohn's disease at Samsung Medical Center, Korea, between March 2001 and February 2007 were enrolled; but only 36 were allowed. The patients were divided into three subgroups according to the treatment regimen. Ten patients, group A, were treated with mesalamine after induction therapy with oral prednisolone and 13 patients, group B, were treated with azathioprine after induction therapy with oral prednisolone. In the third subgroup, 13 patients, group C, received infliximab and azathioprine for induction and maintenance therapy for the first year, and were treated

with azathioprine after 1 year. The oral corticosteroid, prednisolone, was used for induction therapy. Mesalamine or azathioprine was provided for maintenance therapy as the conventional treatment. Infliximab was administered by intravenous infusion at weeks 0, 2 and 6, in combination with daily azathioprine and subsequently every 8 weeks for 10 months. After treatment with infliximab and azathioprine for the first 12 months, only azathioprine therapy was continued.

The cumulative relapse rate, including infliximab use, was 52.8% (19 patients) at 12 months and 66.7% (24 patients) at 24 months. There was no significant difference in the relapse rate between the different age groups. Patients treated with mesalamine had three adverse events. Five patients treated with azathioprine were found to have adverse events. Only one patient had dyspnea and tachycardia after the third infusion of infliximab.

Work Cited:

- Seung Lee, Jong. "Efficacy of Early Treatment with Infliximab in Pediatric Crohn's Disease." *World J Gastroenterology* 16. (2010): 1776-1781. Web. 25 Apr 2010. <<http://www.wjgnet.com/1007-9327/16/1776.asp>>.
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