

Use of local anesthetics in the treatment of inflammatory bowel disease?

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Inflammatory bowel disease (IBD) is a chronic disease of the intestines and no definitive medical treatment has been defined yet. A research team from Turkey applied local anesthetics onto the experimentally induced colitis areas in rats to investigate their potential effect on treating the inflammation at the disease site. The improvement in the macroscopic inflammation at the site of application suggested that local anesthetics might have beneficial therapeutic effects on IBD.

Inflammatory bowel disease (IBD) is a disease of the [gastrointestinal tract](#), mainly the intestines that may occur in the people who have genetic potential with a contribution of environmental factors. There has been no definitive medical treatment and drugs usually help the symptoms just to relieve.

Local anesthetics are used to locally desensitize the tissues to allow surgical interventions. However, their mechanism of action is based on their potential to inhibit [neuronal activity](#) in the area. Since it is proposed that IBD may be a result of imbalance in the autonomic neurons of the colon, local anesthetics have the potential to reduce the inflammation at the site of the colon that are affected by IBD.

A research article to be published on May 28, 2010 in the [World Journal of Gastroenterology](#) addresses this question. In a recent experimental study, investigators from Uludag University School of Medicine, Bursa, Turkey investigated the possible therapeutic effects of local anesthetics on IBD. They topically applied levobupivacaine, which is a novel, long

lasting local anesthetic with less systemic side effects onto the colonic mucosa of the rats that had had experimentally induced IBD.

The researchers used some scoring systems that evaluated the inflammation at the site of drug application. They compared the local anesthetics to saline solution. They found some improvement in the degree of macroscopic inflammation at the areas where local anesthetics were applied; however, those findings were not supported by microscopic findings. Nevertheless, researchers concluded that local anesthetics might have potential therapeutic effects on IBD based on their findings.

More information: Duman U, Yilmazlar A, Ozturk E, Aker S, Sarandol E, Yilmazlar T. Anti-inflammatory efficiency of levobupivacaine in an experimental colitis model. World J Gastroenterol 2010; 16(20): 2537-2541
www.wjgnet.com/1007-9327/full/v16/i20/2537.htm

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