

## Side effects from the use of azathioprine in Crohn's disease: A systematic review

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### ABSTRACT

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**Introduction:** Crohn's disease is a chronic, relapsing and inflammatory condition. Azathioprine (AZA) is an immunosuppressive drug used for maintenance of the disease remission. However, the side effects this drug causes to patients, makes it questionable, as to its safety, for health.

**Purpose:** To determine the type and severity of side effects caused by AZA treatment in Crohn's disease.

**Materials and methods:** Through systematic review of literature, 85 studies were found, 10 of which were selected. The selection criteria were: a) articles, which were primary studies, reviews or meta-analyzes, b) available in full text, c) written in English and d) finally articles, referring to humans. Results: Studies show that AZA, is drug of choice, for treating Crohn's disease. However, side effects

from its use are numerous and increasing in severity. According to the survey results, people who used this drug, developed at some point in their treatment, side effects such as hepatotoxicity, myelotoxicity, acute pancreatitis ( $p < 0.001$ ), gastrointestinal intolerance, general hardship, blood disorders, fever wave, itching and arthralgia.

**Conclusions:** Recommendations from these studies show that side effects immerge from almost all systems in the patient's body, but it is not proven if all of them have to do exclusively with the drug or the disease's nature. As AZA holds a prominent role in disease's treatment, the use of more thorough controls is recommended for simultaneous treatment of side effects.

**Key words:** Azathioprine, Crohn's disease, side effects of azathioprine, azathioprine toxicity

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