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Mepenzolate

Updated: July 7, 2017.

OVERVIEW

Introduction

Mepenzolate is an anticholinergic agent used to treat gastrointestinal conditions such as acid peptic disease and irritable bowel syndrome. Mepenzolate has not been implicated in causing liver enzyme elevations or clinically apparent acute liver injury.

Background

Mepenzolate (me pen' zoe late) is a synthetic quaternary ammonium anticholinergic agent which inhibits the muscarinic actions of acetylcholine on autonomic nerve endings, decreasing gastrointestinal secretions and intestinal motility. Mepenzolate has broad activity against muscarinic acetylcholine receptors, but its highly polar quaternary ammonium group makes it less likely to cross lipid membranes such as the blood brain barrier, which is believed to decrease the potential for central nervous system effects. Mepenzolate has been used largely for gastrointestinal conditions including peptic ulcer disease and gastrointestinal conditions associated with pain and spasm. Mepenzolate is approved for use in the United States for the treatment of peptic ulcer disease but is now not commonly used, having been replaced by more effective antiulcer agents. Mepenzolate is available in tablets 25 mg under the brand name Cantil. The typically recommended oral dose in adults is 25 to 50 mg two to four times daily. Common side effects are those of parasympathetic stimulation and include dryness of the mouth and eyes, decreased sweating, headache, visual blurring, constipation, and urinary retention. Because of its structure, mepenzolate is believed to be less likely than other anticholinergics to cross the blood brain barrier and cause central nervous system effects such as restlessness, confusion and hallucinations. Anticholinergic agents can precipitate acute narrow angle glaucoma and acute urinary retention.

Hepatotoxicity

Like other anticholinergic agents, mepenzolate has not been linked to episodes of liver enzyme elevations or clinically apparent liver injury. The metabolism of mepenzolate is not well defined, but it is likely metabolized by the liver.

References on the safety and potential hepatotoxicity of anticholinergics are given together after the Overview section on Anticholinergic Agents.

Drug Class: Anticholinergic Agents

PRODUCT INFORMATION

REPRESENTATIVE TRADE NAMES

Mepenzolate – Cantil®

DRUG CLASS

Anticholinergic Agents

COMPLETE LABELING

Product labeling at DailyMed, National Library of Medicine, NIH

CHEMICAL FORMULA AND STRUCTURE

DRUG	CAS REGISTRY NUMBER	MOLECULAR FORMULA	STRUCTURE
Mepenzolate	25990-43-6	C21-H26-N-O3