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NLM Citation: LiverTox: Clinical and Research Information on Drug-Induced Liver Injury [Internet]. Bethesda (MD): National Institute of Diabetes and Digestive and Kidney Diseases; 2012-. Solifenacin. [Updated 2017 Jul 7].
Bookshelf URL: https://www.ncbi.nlm.nih.gov/books/

Solifenacin

Updated: July 7, 2017.

OVERVIEW

Introduction

Solifenacin is an anticholinergic and antispasmodic agent used to treat urinary incontinence and the overactive bladder syndrome. Solifenacin has not been implicated in causing liver enzyme elevations or clinically apparent acute liver injury.

Background

Solifenacin (soe" li fen' a sin) is an anticholinergic agent that inhibits muscarinic actions of acetylcholine on autonomic nerve endings, decreasing secretions and inhibiting gastrointestinal and bladder motility. Solifenacin increases the bladder capacity and decreases contractions and the urgency of urination. Solifenacin was approved for use in the United States in 2004 and it remains in clinical use. Current indications are for treatment of overactive bladder and symptoms of urgency and urinary frequency. It is available in tablets of 5 and 10 mg under the brand name VESIcare. The recommended adult oral dose is 5 to 10 mg once daily. Common side effects are those of parasympathetic stimulation and include dryness of the mouth and eyes, decreased sweating, headache, visual blurring, constipation, urinary retention, restlessness, confusion and hallucinations. Anticholinergic agents can precipitate acute narrow angle glaucoma and acute urinary retention.

Hepatotoxicity

Like other anticholinergic agents, solifenacin has not been linked to episodes of liver enzyme elevations or clinically apparent liver injury. Solifenacin is metabolized in the liver via the cytochrome P450 system (CYP 3A4).

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

Solifenacin – VESIcare®

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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
Solifenacin	242478-37-1	C23-H26-N2-O2