

Hepatotoxicity and Changes in Liver Enzymes Due to Use of Non-Steroidal Anti Inflammatory Drugs (NSAIDs) in Non-Traumatic Musculoskeletal Painful Disorders

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Abstract

Objective: The present study aims at critical analysis and investigation of liver function test and hepatotoxicity with use of NSAIDs in patients of Non-Traumatic musculoskeletal painful disorders.

NSAIDs are most commonly used by medical fraternity worldwide for relief from acute, recurring or chronic pain conditions and are easily available in India in many forms over-the-counter analgesic, sometimes resulting in adverse drug reactions (ADR). The use of NSAIDs and gastrointestinal and renal disturbance is well known. The most frequent ADR due to NSAIDs use was gastrointestinal effects leading to discontinuation of treatment

The liver plays a central role in drug metabolism. However, little is known about the cause and effect of NSAIDs on liver and liver enzymes. Most NSAIDs induce hepatic toxicity are due to individual patient susceptibility (idiosyncrasy), and intrinsic associated with mainly hepatocellular tissue. Hepatic toxicity response ranges from asymptomatic or transient derangement in liver function test to fulminant liver damage.

The hepatotoxicity due to risk factors associated with NSAID toxicity must be kept in mind by physicians whenever prescribing NSAIDs, because much of underreporting is usually due to transient and asymptomatic effects on liver.

Keywords: Non-Steroidal anti-inflammatory drugs (NSAIDs); Hepatotoxicity; Non traumatic musculoskeletal painful disorders; Liver Enzymes; Serum Bilirubin

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Introduction

Nonsteroidal anti-inflammatory drugs (NSAIDs) which also includes selective Cyclooxygenase 2 inhibitors, have anti-inflammatory and analgesic and some antipyretic properties. NSAIDs are more commonly used for the acute, recurring or chronic non traumatic musculoskeletal condition such as backache, arthritis, osteoarthritis, myalgias and other progressive non traumatic disorders [1,2]. NSAIDs are most frequently used by physician worldwide and especially by orthopedic surgeons

and are even easily available as over-the-counter-analgesic in India. Non-steroidal anti-inflammatory drugs (NSAIDs) along with antimicrobial medications are most widely used and nevertheless are the most frequent causes of drug-induced liver injury (DILI) [1-3]. However, the present literature roughly states that 10% of total drug-induced hepatotoxicity is NSAIDs related, which is enormous considering the already high cost of medical treatment. The current policy concerning the use of NSAIDs recommends that patients take “the lowest effective dose for the shortest possible duration” needed to control pain symptoms,