Revista de Gastroenterología de México. 2016;81(3):121–125

REVISTA DE GASTROENTEROLOGÍA DE MÉXICO
www.elsevier.es/rgmx

ORIGINAL ARTICLE

Are the clinical guideline recommendations on gastroprotection being followed? A review in patients taking nonsteroidal anti-inflammatory drugs☆,☆☆

J.A. Velasco-Zamora[a], **E. Gómez-Reyes**[b], **L. Uscanga**[c,*]

[a] *Gastroenterology Resident, Instituto Nacional de Ciencias Médicas y Nutrición «Salvador Zubirán», Mexico City, Mexico*
[b] *Attached, Departamento de Gastroenterología, Instituto Nacional de Ciencias Médicas y Nutrición «Salvador Zubirán», Mexico City, Mexico*
[c] *Departamento de Gastroenterología, Instituto Nacional de Ciencias Médicas y Nutrición «Salvador Zubirán», Mexico City, Mexico*

Received 9 January 2016; accepted 16 April 2016
Available online 25 July 2016

KEYWORDS
Nonsteroidal anti-inflammatory drugs;
Gastrointestinal risk;
Gastroprotection;
Proton pump inhibitors;
Adverse effect

Abstract
Introduction and aims: The chronic use of nonsteroidal anti-inflammatory drugs (NSAIDs) can cause complications in the gastrointestinal tract. The use of proton pump inhibitors (PPIs) is recommended in high-risk patients to prevent them.
Objective: The aim of this article was to evaluate the gastroprotection measures taken in persons with chronic NSAID use.
Materials and methods: A descriptive cross-sectional study was conducted. The clinical records were reviewed of patients seen as outpatients at the Rheumatology Department over a 4-month period, choosing those with chronic NSAID use, and intentionally looking for gastroprotection measures according to the recommendations published by the American College of Gastroenterology.
Results: A total of 417 patients (347 women; mean age: 48.12 ± 14.2 years) were included. The most frequent diagnosis was rheumatoid arthritis (65%). Nine patients (2.1%) had a history of peptic ulcer, 48 (11.5%) patients were 65 years of age or older, 26 (6.2%) patients took NSAIDs and aspirin, and 130 (31.2%) took NSAIDs with steroids. Tests for *Helicobacter pylori* infection were done in just 53 cases, and there were positive results in only 9 (16%). Some

☆ Please cite this article as: Velasco-Zamora JA, Gómez-Reyes E, Uscanga L. ¿Qué tanto se siguen las recomendaciones de las guías clínicas sobre gastroprotección? Una revisión en enfermos que consumen antiinflamatorios no esteroideos. Revista de Gastroenterología de México. 2016;82:121–125.

☆☆ See related content at DOI: http://dx.doi.org/10.1016/j.rgmxen.2016.06.016, Abdo-Francis JM. Clinical practice guidelines: What is their actual usefulness? Rev Gastroenterol Méx. 2016;81(3):119–20.

* Corresponding author. Departamento de Gastroenterología, Instituto Nacional de Ciencias Médicas y Nutrición «Salvador Zubirán», Ciudad de México, Avenida Vasco de Quiroga No.15, Colonia Belisario Domínguez Sección XVI, Delegación Tlalpan C.P.14080,
Tel.: +54 87 09 00 ext 4401.
E-mail address: luis.uscangad@gmail.com (L. Uscanga).

risk for gastrointestinal toxicity was established in 211 cases and only 65 (30.8%) received gastroprotection. In contrast, 31 (15%) patients received gastroprotection when there was no indication for it.
Conclusion: Prophylaxis with PPIs in chronic NSAID users was inadequately employed. It was not prescribed in the majority of patients (69.2%) and it was used with no justification in others (15%).

PALABRAS CLAVE
Antiinflamatorios no esteroideos;
Riesgo gastrointestinal;
Gastroprotección;
Inhibidor de la bomba de protones;
Efecto adverso

¿Qué tanto se siguen las recomendaciones de las guías clínicas sobre gastroprotección? Una revisión en enfermos que consumen antiinflamatorios no esteroideos

Resumen
Antecedentes: El uso crónico de antiinflamatorios no esteroideos (AINE) puede provocar complicaciones en el tracto gastrointestinal. Para prevenirlas, se recomienda el uso de inhibidores de la bomba de protones (IBP) en los enfermos de alto riesgo.
Objetivo: Evaluar las medidas de gastroprotección en personas que usan AINE en forma crónica.
Material y métodos: Estudio descriptivo y transversal. Se revisaron los expedientes clínicos de los enfermos que acudían a la consulta externa de reumatología durante 4 meses y se eligieron a los que utilizaban AINE de forma crónica. Se buscaron intencionadamente las medidas de gastroprotección de acuerdo con las recomendaciones publicadas por el Colegio Americano de Gastroenterología.
Resultados: Se incluyó a 417 pacientes (347 mujeres; edad promedio= 48.12 ± 14.2 años). El diagnóstico más frecuente fue artritis reumatoide (65%). Nueve pacientes (2.1%) tenían historia de úlcera péptica. Cuarenta y ocho (11.5%) enfermos tenían 65 años o más. Veintiséis (6.2%) tomaban AINE y aspirina, y 130 (31.2%) AINE con esteroides. En 53 casos (12.7%) se conocía el estatus de infección por *Helicobacter pylori* que fue positivo en solo 9 (16%). En 211 casos se estableció algún riesgo para toxicidad gastrointestinal y solo 65 (30.8%) recibía gastroprotección. En cambio, 31 (15%) lo recibieron sin ninguna indicación.
Conclusión: La profilaxis con IBP en usuarios crónicos de AINE se emplea de manera inadecuada. En su mayoría no se indica (69.2%) y en otras se utiliza sin justificación (15%).

Introduction

Nonsteroidal anti-inflammatory drugs (NSAIDs) are the most widely prescribed drugs worldwide and their use has substantially decreased the morbidity and mortality of cardiovascular disease and improved the quality of life in persons that suffer from chronic pain.[1] Low doses of platelet antiaggregants have been shown to be efficacious in primary as well as secondary prevention of cardiovascular events in high-risk persons, mainly those of advanced age and that present with comorbidities.[2,3] In addition, they are efficacious as analgesics and anti-inflammatory agents and are used as part of treatment for rheumatologic diseases, post-trauma, and neoplasias.[4] Unfortunately their chronic use can cause adverse effect in the digestive tract that vary from dyspeptic symptoms to severe complications such as bleeding and perforation.[5,6] Thus an effort has been made to identify the risk factors associated with these complications in order to provide preventive measures. Several studies have shown that age above 65 years, a previous history of peptic ulcer disease, high doses of NSAIDs, concomitant use of anticoagulants, steroids and/or aspirin, and *H. pylori* infection are determining factors of NSAID damage.[7,8] Clinical guidelines have described various strategies for the prevention of harmful NSAID effects.[9,10] The latest ones published in 2009 by the American College of Gastroenterology suggest gastroprotection measures in accordance with the risk for gastrointestinal involvement classified as low, moderate, and high, and they include cardiovascular risk, given the known cardiotoxicity of NSAIDs and aspirin.[11] The primary prophylactic measure is to use the standard dose of proton pump inhibitor (PPI), as well as the least ulcerogenic NSAID and the lowest effective dose.[12,13] But despite the guidelines, there is evidence of inadequate use of the primary prophylactic measures.[14,15] There are no studies in Mexico on gastroprotection measures