



ORIGINAL ARTICLE

Use of ergotamine: Do physicians in Colombia know how to prescribe it?☆

J.E. Machado-Alba^{a,*}, C.D. Morales-Plaza^b

^a Grupo de Investigación en Farmacoepidemiología y Farmacovigilancia, Universidad Tecnológica de Pereira, Colombia-Audifarma S.A., Pereira, Colombia

^b Grupo de Investigación en Farmacoepidemiología y Farmacovigilancia, Departamento de Ciencias Básicas, Facultad de Ciencias de la Salud, Universidad Tecnológica de Pereira-Audifarma-S.A., Colombia

Received 8 February 2013; accepted 1 June 2013

Available online 9 May 2014

KEYWORDS

Ergotamine;
Drug prescriptions;
Medication errors;
Drug interactions;
Pharmacoepidemiology;
Colombia

Abstract

Introduction: Ergot derivatives are drugs with vasoconstrictor effects that are used to abort migraine attacks. This study aims to determine how ergotamine derivatives are prescribed by physicians in Colombia, find variables associated with inappropriate prescribing, and review potential interactions in our patients.

Methods: We reviewed 86 411 formulas during April 2012, identifying the prescription by drug, dose, interval, duration of use, and indication. We interviewed 288 randomly selected patients in whom we also investigated concomitant use of (a) antihypertensive agents, (b) ischaemic heart disease treatments, (c) antiretrovirals, (d) other antimigraine drugs, and (e) macrolides, because of their potential for interactions.

Results: We identified 801 prescriptions from patients in 27 cities with a mean age of 35.1 ± 14.1 years; 82.5% of the prescriptions were for women, 96.5% were written by primary care physicians, and 65.4% ($n = 524$) corresponded to migraine treatments. There were 26 different prescription types and 797 prescriptions were incorrect with regard to usage recommendations (99.5%). Inappropriate prescribing was significantly associated with the health centre providing patient care ($P = .005$). Of the patients who were interviewed by telephone, 266 (92.4%) took the drug according to the erroneous indication. A total of 54 patients (6.7%) were treated with antihypertensive drugs, 24 (2.9%) with macrolides, and 5 (0.6%) with another concomitant antimigraine drug.

Discussion: Most patients take ergotamine improperly, apart from the fact that potential interactions may increase the risk of health problems such as ergotism and coronary events. Physicians will require assessment measures, updated information, and continuous training.

© 2013 Sociedad Española de Neurología. Published by Elsevier España, S.L. All rights reserved.

☆ Please cite this article as: Machado-Alba JE, Morales-Plaza CD. Utilización de ergotamina: ¿saben los médicos en Colombia cómo prescribirla? Neurología. 2014;29:280–285.

* Corresponding author.

E-mail address: machado@utp.edu.co (J.E. Machado-Alba).

PALABRAS CLAVE

Ergotamina;
Prescripciones de
medicamentos;
Errores de
medicación;
Interacciones de
fármacos;
Farmacoepidemiología;
Colombia

Utilización de ergotamina: ¿saben los médicos en Colombia cómo prescribirla?**Resumen**

Introducción: Los derivados ergotamínicos son medicamentos para abortar las crisis migrañosas, con un efecto vasoconstrictor, que poseen una forma específica de formulación. Se pretendió determinar la forma de prescripción de derivados ergotamínicos por médicos, las variables asociadas a inadecuadas prescripciones y las interacciones potenciales en pacientes de Colombia.

Métodos: Se revisaron 86.411 fórmulas durante el mes de abril del 2012; se identificó la prescripción, con medicamento, dosis, intervalo, tiempo de uso e indicación. Se entrevistó a 288 pacientes seleccionados aleatoriamente, en los que además se buscó uso concomitante con: a) antihipertensivos; b) medicamentos para enfermedad cardíaca isquémica; c) antirretrovirales; d) otros antimigrañosos, y e) macrólidos a causa de sus interacciones.

Resultados: Se obtuvieron 801 prescripciones a pacientes en 27 ciudades del país con edad promedio de $35,1 \pm 14,1$ años, el 82,5% en mujeres, el 96,5% de ellas realizadas por el médico de atención primaria, 524 (65,4%) de los casos para migraña; se hallaron 26 formas de prescripción distintas y 797 prescripciones incorrectas en cuanto a recomendaciones de uso (99,5%). La prescripción inadecuada se asoció significativamente a los centros de atención médica donde era atendido el paciente ($p=0,005$). De los pacientes entrevistados, 266 (92,4%) lo tomaron según la errónea indicación. En total, 54 (6,7%) pacientes tomaban antihipertensivos, 24 (2,9%) macrólidos y 5 (0,6%) más otro antimigrañoso concomitantemente.

Discusión: La mayoría de los pacientes están recibiendo ergotamina de manera inadecuada, sumado a las posibles interacciones que elevan el riesgo de problemas para la salud, como ergotismo y eventos coronarios. Deben implementarse medidas de evaluación, actualización y formación continua para médicos.

© 2013 Sociedad Española de Neurología. Publicado por Elsevier España, S.L. Todos los derechos reservados.

Introduction

Migraine has a prevalence of 8.0% in men and 17.2% in women. It was estimated that 35 million patients in the USA presented migraines in 2005; in 2006, 12.6% of Spanish population experienced migraines and 1 in 4 female migraine sufferers had 4 or more severe attacks per month. During these attacks, more than 80% of patients are severely incapacitated and require bed rest.¹⁻³

Pharmacological treatment for migraines is divided into 2 main categories: preventative and symptomatic. The aim of symptomatic treatment is to diminish pain using agents such as non-steroidal anti-inflammatory drugs, analgesics (alone or as combination therapy), and opioids if pain is very intense. It also includes migraine-specific drugs, such as triptans and ergot derivatives that are recommended for aborting migraine attacks.⁴⁻⁹

Ergotamine is a drug that can bind to serotonin, dopamine, and adrenaline receptors. It acts as an agonist and antagonist of multiple neurological circuits and elicits significant vasoconstriction of arteries, both in the brain and in general.¹⁰ It has been linked to different adverse drug reactions, especially vasomotor events, acute vascular insufficiency, and a disorder known as ergotism. Ergotism may be serious and it can develop independently from the drug dose and pharmacological interactions. It has also been associated with acute coronary events.¹¹ In Colombia, use of ergotamine has become more widespread due to the low cost of the drug and the fact that it is offered by the Colombian compulsory health plan. This plan covers all basic drugs

available to patients registered with the Colombian health and social security system (SGSSS). The sole indications for this drug are migraine and cluster headache. It is prescribed in doses proved to be effective and safe for aborting a migraine attack, and doses cannot exceed 6 mg per day or 10 mg per week.

The aim of this study is to determine how ergot derivatives are prescribed in Colombia, identify variables associated with how they are prescribed, and list potential drug interactions in patients registered with the SGSSS in 2012.

Patients and methods

We conducted a cross-sectional study on the use of ergotamine in Colombian patients registered with the SGSSS. The study period was between 1 April and 30 April 2012. Audifarma S.A. is a logistic operator responsible for dispensing drugs to different institutional clients that provide health care services in Colombia. It currently supplies 1.5 million formulas per month to approximately 6 million users throughout the country. All the information on the supply of drugs is stored in a database. From this database, we can obtain statistics broken down by institutional client (for example, health insurance providers [HIP] or health care centres [HCC]), city, user, drug, disease, prescribing doctor's specialty, and dosage form.

The department of pharmacoepidemiology at Audifarma S.A. reviews statistics on a daily basis to find drugs that may

Download English Version:

<https://daneshyari.com/en/article/3077215>

Download Persian Version:

<https://daneshyari.com/article/3077215>

[Daneshyari.com](https://daneshyari.com)