Rev Clin Esp. 2015;215(6):315–319

Revista Clínica Española

www.elsevier.es/rce

BRIEF ORIGINAL

Prescription of oral anticoagulation for patients with atrial fibrillation and previous hospitalization in a cardiology department. Experience in actual practice in a tertiary hospital☆

Ó. Fabregat-Andrés[a,b,*], A. Cubillos-Arango[a], N. Chacón-Hernández[a], V. Montagud[a], S. Morell[a], L. Fácila[a]

[a] *Servicio de Cardiología, Consorcio Hospital General Universitario de Valencia, Valencia, Spain*
[b] *Fundación para la Investigación, Hospital General Universitario de Valencia, Valencia, Spain*

Received 15 January 2015; accepted 24 February 2015
Available online 9 June 2015

KEYWORDS
Atrial fibrillation;
Oral anticoagulation;
Novel anticoagulant agents;
Hospitalization

Abstract
Introduction: Atrial fibrillation is the main reason for oral anticoagulation in our community. New oral anticoagulants (NOACs) overcome the disadvantages of vitamin K antagonists (VKAs), although there are scarce data on its use in our community. The aim of our study was to assess the use of NOACs and anticoagulation control using VKA as measured by the time within the therapeutic range (TTR) in an actual clinical scenario.
Methods: A retrospective cohort analysis was conducted of 816 patients admitted to cardiology over a period of 3 years, with a diagnosis of atrial fibrillation and anticoagulant treatment at discharge. We assessed the percentage of patients prescribed NOACs and the TTR with VKA. We compared safety and efficacy events during the 15-month follow-up among the patients prescribed NOAC, those prescribed VKA with a good TTR and those with a poor TTR.
Results: The percentage of patients prescribed NOAC was 7.6%. Serial INR measurements found that 71.3% of patients had a poor TTR. Although the groups were not comparable, a higher incidence of the combined event was observed in those treated with VKA and a poor TTR compared with those prescribed NOAC ($p = .01$).
Conclusions: For patients with a previous hospitalization in cardiology in a tertiary hospital and a diagnosis of atrial fibrillation, the rate of NOAC prescription is low, and the TTR with VKA was poor.

☆ Please cite this article as: Fabregat-Andrés Ó, Cubillos-Arango A, Chacón-Hernández N, Montagud V, Morell S, Fácila L. Prescripción de anticoagulación oral en pacientes con fibrilación auricular e ingreso previo en un servicio de cardiología. Experiencia en un hospital terciario. Rev Clin Esp. 2015;215:315–319.

* Corresponding author.
E-mail address: osfabregat@gmail.com (Ó. Fabregat-Andrés).

PALABRAS CLAVE
Fibrilación auricular;
Anticoagulación oral;
Nuevos anticoagulantes orales;
Ingreso hospitalario

Prescripción de anticoagulación oral en pacientes con fibrilación auricular e ingreso previo en un servicio de cardiología. Experiencia en un hospital terciario

Resumen
Introducción: La fibrilación auricular es el principal motivo de anticoagulación oral en nuestro medio. Los nuevos anticoagulantes orales (NACO) superan las desventajas de los antagonistas de la vitamina K (AVK), aunque existen pocos datos de uso en nuestro medio. Nos planteamos evaluar el uso de NACO y el control en rango terapéutico (CRT) con AVK en un escenario clínico real.
Métodos: Análisis de cohortes retrospectivo de 816 ingresos en cardiología durante 3 años con el diagnóstico de fibrilación auricular y tratamiento anticoagulante al alta, evaluando el porcentaje de prescripción de NACO y el CRT con AVK. Se compararon eventos de seguridad y eficacia durante un seguimiento de 15 meses entre los pacientes con NACO, los pacientes con AVK y buen CRT, y aquellos con mal CRT.
Resultados: El porcentaje de prescripción de NACO fue del 7,6%. La determinación seriada de INR encontró un 71,3% de pacientes con mal CRT. Aunque los grupos no fueron comparables, se observó una mayor incidencia del evento combinado (ictus o infarto de miocardio, y mortalidad) en los tratados con AVK y mal CRT que en aquellos con NACO (p = 0,01).
Conclusiones: En pacientes con ingreso previo en cardiología en un hospital terciario y diagnóstico de fibrilación auricular, el índice de prescripción de NACO es bajo y el CRT con AVK es pobre.

Background and objectives

Atrial fibrillation is an increasingly prevalent disease and represents a significant cause of morbidity, mortality and hospitalization. Atrial fibrillation is the main reason for prescribing oral anticoagulation in our community.[1] The recent introduction of new oral anticoagulants (NOACs) that overcome the classic disadvantages of treatment with vitamin K antagonists (VKAs) and add clinical benefits in terms of morbidity and mortality (according to the various clinical trials that support them) has created a new clinical scenario at least as hopeful.[2,3] Despite the evidence provided by these trials, there are still limited data on the use, safety and efficacy of NOACs in standard clinical practice. Recent studies have also shown poor anticoagulation control as measured by the time within the therapeutic range (TTR) using oral anticoagulation with VKAs in our community,[4,5] which reinforces the need to add data from standard practice on this issue. Our objectives, therefore, were to provide an overview of the use of NOACs and oral anticoagulation control with VKAs in an actual clinical scenario.

Patients and methods

A retrospective cohort analysis was conducted of patients hospitalized in a department of cardiology over a period of 3 years (from September 2011 to August 2014), with a primary or secondary diagnosis of atrial fibrillation and anticoagulant treatment at discharge. Of the 3112 consecutive hospitalizations, we identified 816 patients with atrial fibrillation (26.2%), 62 (7.6%) of whom had a prescription at discharge of NOACs. To assess the TTR with VKAs, we started by conducting a random selection (1:3), with a final analysis of 251 patients (of the total 754 patients). Thus, the measurement by number of INR controls (comparable to the Rosendaal method for determining the time in therapeutic range, using a cutoff of 60% instead of 65%)[3] found that 71.3% of the patients had a poor TTR. For this analysis, we reviewed the latest INR measurements during follow-up (minimum and maximum of 5 and 10, respectively, considering INR values <2 and >3 as a poor TTR). If an adverse event was recorded, the measurements prior to the event were considered.

We divided the sample into 3 subgroups: patients undergoing treatment with NOACs, patients with VKAs and a good TTR and patients with VKAs and a poor TTR. In the survival analysis, we considered total mortality and the incidence of stroke (ischemic and hemorrhagic) as adverse events of efficacy. We also considered the incidence of acute myocardial infarction during follow-up as a significant clinical event, as reflected in the large clinical trials on NACO.[6,7] We considered the incidence of stroke or myocardial infarction along with total mortality as a combined event. We assessed as a safety event the incidence of major bleeding, defined as a clinically significant hemorrhage that required a transfusion of at least 2 units of red blood cells, which required hospitalization or that caused death, according to the International Society on Thrombosis and Haemostasis criteria.[8] Strokes of hemorrhagic origin were excluded and were considered an efficacy event.

Results

To measure TTR, we employed the measurement by number of INR controls (comparable to the Rosendaal method for measuring TTR). Establishing the cutoff at 60% (instead of 65%[3]), 71.3% of the patients in our sample had poor