



Review Article

Hand and wrist surgery without suspending warfarin or oral antiplatelet – systematic review[☆]

Q1 Trajano Sardenberg*, Francisco Simões Deienno, Raffaello de Freitas Miranda, Denis Varanda, Andréa Christina Cortopassi, Paulo Roberto de Almeida Silveiras

Universidade Estadual Paulista (Unesp), Faculdade de Medicina de Botucatu, Botucatu, SP, Brazil

ARTICLE INFO

Article history:

Received 10 May 2016

Accepted 19 May 2016

Available online xxx

Keywords:

Hand/surgery

Anticoagulants

Warfarin

ABSTRACT

To assess, through a systematic literature review, whether or not it is necessary to suspend antithrombotic medications (warfarin, aspirin, and clopidogrel) to perform elective wrist and hand surgeries. The search for articles was performed using a combination of keywords in the databases available, without scientific design constraints, being selected series with five or more surgeries; the selected articles were analyzed regarding serious (need for surgical treatment) and mild complications (without surgery). Seven articles were retrieved and analyzed; 410 wrist and hand surgeries were performed in patients on warfarin or aspirin and clopidogrel, with three serious complications (0.7%) and 38 mild (9.2%); 2023 surgeries were performed in patients without use of antithrombotics, with zero serious and 18 (0.8%) minor complications. Patients using warfarin or oral antiplatelet (aspirin, clopidogrel, and aspirin associated with clopidogrel) need not suspend the medication to undergo wrist and hand surgery.

© 2016 Sociedade Brasileira de Ortopedia e Traumatologia. Published by Elsevier Editora Ltda. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Cirurgia da mão e do punho sem suspender varfarina ou antiplaquetários orais – Revisão sistemática

RESUMO

Avaliar, por meio de revisão sistemática da literatura, se há ou não necessidade de suspender medicamentos antitrombóticos (varfarina, AAS e clopidogrel) para a realização de procedimentos eletivos de cirurgia do punho e da mão. A busca de artigos foi feita por meio da combinação de palavras-chave nas bases de dados disponíveis, sem restrições de desenho científico, sendo selecionadas séries com cinco ou mais cirurgias; os artigos selecionados foram analisados em relação às complicações graves (necessidade de tratamento cirúrgico)

Palavras-chave:

Mão/cirurgia

Anticoagulantes

Varfarina

[☆] Study conducted at Universidade Estadual Paulista (Unesp), Faculdade de Medicina de Botucatu, Botucatu, SP, Brazil.

* Corresponding author.

E-mail: tsarden@fmb.unesp.br (T. Sardenberg).

<http://dx.doi.org/10.1016/j.rboe.2017.07.001>

2255-4971/© 2016 Sociedade Brasileira de Ortopedia e Traumatologia. Published by Elsevier Editora Ltda. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

e leves (sem necessidade de tratamento cirúrgico). Sete artigos foram encontrados e analisados; 410 cirurgias do punho e da mão foram feitas em pacientes em uso de varfarina ou AAS e clopidogrel e observou três complicações graves (0,7%) e 38 leves (9,2%); 2.023 cirurgias foram feitas em pacientes sem uso dos antitrombóticos, apresentaram zero complicações graves e 18 leves (0,8%). Pacientes em uso de varfarina ou antiplaquetários orais (AAS, clopidogrel e AAS associado a clopidogrel) não necessitam suspender a medicação para ser submetidos a cirurgias do punho e da mão.

© 2016 Sociedade Brasileira de Ortopedia e Traumatologia. Publicado por Elsevier Editora Ltda. Este é um artigo Open Access sob uma licença CC BY-NC-ND (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

The indication of continuous use of oral antithrombotic drugs for the treatment or prevention of cardiovascular and cerebrovascular diseases has increased in recent decades.^{1,2} Antithrombotic drugs are distributed in two groups: anticoagulants, warfarin being the most used, and antiplatelets, with acetylsalicylic acid (ASA) and clopidogrel alone or in combination, commonly used in the prevention of thrombotic diseases. The adjustment of warfarin dosage to keep the patient in an anticoagulated state, prevent thrombotic diseases, and avoid causing serious bleeding is a complex treatment that requires control through regular International Normalized Ratio (INR) testing; warfarin suspension and reintroduction are even more difficult, and may lead to the development of new thrombotic events or hyperanticoagulation with bleeding risk. Suspension and reintroduction of oral antiplatelet agents (ASA and clopidogrel) also present a high risk of thrombotic diseases, as well as of thrombosis or bleeding.³⁻⁶

Patients taking antithrombotic medications that require surgery put physicians in a dilemma: stopping antithrombotic medication to avoid excessive bleeding, but increasing the risk of thromboembolic disease, or maintaining the antithrombotic medication to prevent thromboembolism, but increasing the risk of bleeding. Clinical experiences and meta-analysis studies indicate two groups of situations: surgeries and invasive procedures with a low risk of bleeding (e.g., endoscopy, cataract surgery, arthrocentesis, and dermatological surgeries) do not require discontinuation of antithrombotic therapy, and surgeries with increased risk of bleeding require the suspension of oral antithrombotic medication and, depending on the risk of thrombosis, a transition period with heparin.^{4,7,8} The present study aimed to assess whether it is necessary to suspend antithrombotic drugs (warfarin, aspirin, and clopidogrel) for elective surgical procedures of the wrist and hand, through a systematic review.

Material and methods

The search strategy for the databases used the terms hand surgery and anticoagulant or anticoagulants or indirect thrombin inhibitors or platelet aggregation inhibitors or blood platelet antiaggregants or platelet antiaggregants or blood platelet aggregation inhibitors or platelet inhibitors or antiplatelet agents or antiplatelet drugs or platelet antagonists

or blood platelet antagonists or warfarin or clopidogrel or ticlopidine or aspirin or acetylsalicylic acid. The strategy was adapted to search in MEDLINE (PubMed), Embase, Scopus, LILACS, SciELO, and Cochrane Library (Reviews and Trials) databases.

There was no period limitation for the study; the searches were carried out until December 2015.

Articles that directly addressed the study topic, i.e., wrist and hand surgery and the use or suspension of anticoagulants or antiplatelet agents, were selected through the analysis of their titles and, when necessary, abstracts retrieved through the search strategies in databases.

There were no restrictions regarding study design. However, only articles with sample size (patients or surgeries) equal to or greater than five patients operated on using warfarin or antiplatelet drugs (ASA and clopidogrel) were selected.

The bibliographic references of the selected articles were analyzed in search of other studies that may not have been previously retrieved.

The articles were analyzed and the following characteristics were recorded: sample size (number of surgeries or patients); type of surgery; use of tourniquet; type of antithrombotic medication (warfarin, antiplatelet associated with warfarin, ASA, clopidogrel, or ASA associated with clopidogrel); and number and severity of complications.

The complications assessed were those directly related to the effects of warfarin and antiplatelet agents (clopidogrel and ASA) on blood coagulation during surgery and up to two weeks postoperatively: excessive bleeding and bruising. Complications that were treated only with conservative methods were considered as mild; those that required reoperation were considered as severe.

Results

A total of 387 articles were selected. After analyzing the titles and abstracts and excluding duplicate studies, nine articles were selected. After reading their full texts, two were excluded, as the sample size was less than five surgeries or patients. The analysis of the references of the nine articles did not retrieve any new papers. The final number of articles included for analysis was seven (Fig. 1).

The study by Smith and Hooper⁹ was classified as a retrospective cohort. All surgeries were performed with the use of a tourniquet. The sample (surgeries) included: 1370 surgeries without antithrombotic medication (843 for carpal

Download English Version:

<https://daneshyari.com/en/article/8600113>

Download Persian Version:

<https://daneshyari.com/article/8600113>

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