

Aminaphtone for Light Bleeding in Patients Under Oral Anticoagulation

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Abstract: *Background:* Bleeding is a common complication of oral anticoagulation therapy.

Objective: The present study evaluated the use of aminaphtone in patients with minor bleeding while taking warfarin.

Methods: Seven patients suffering from bleeding of the nose and gums, who were taking therapeutic doses of warfarin, were included in the study.

Results: The patients were prescribed 75 mg aminaphtone twice daily. For 5 of these patients the bleeding was controlled within 48 h, for 1, within 96 h and for the other, a satisfactory reduction was obtained.

Conclusion: Patients with minor bleeding during treatment using oral anticoagulation, who are free from risk of other complications, can benefit from the use of aminaphtone as an initial therapeutic option.

Keywords: Bleeding, Oral Anticoagulation, Warfarin, Aminaphtone, Treatment

INTRODUCTION

Bleeding is the most important complication of oral anticoagulation, with the risks being reduced when the international normalized relation (INR) is maintained within the therapeutic range (between 2 and 3) [1, 2]. Excessive bleeding can be life threatening. Therefore, tight control of coagulation is essential. Minor bleeding does not expose patients to any major risk [1, 2], but is distressing.

Oral warfarin, the basis of preventive anticoagulation therapy, is a vitamin K antagonist requiring careful monitoring as it produces side effects and drug-induced interactions. Despite of the evident efficacy, there are risks and its indication is based on probable benefits [3]. Epistaxis is the most common bleeding because of the extensive vascularization, the fragility of the nasal mucosa and the exposure of the area to trauma and irritant agents. Generally bleeding is minor [4].

We evaluated the use of aminaphtone to abate minor bleeding in patients on warfarin.

CASE REPORT

Seven patients on warfarin for deep venous thrombosis who presented with bleeding were evaluated in a prospective, quasi-randomized, for order of arrival in observational study. Inclusion criteria were the presence of minor bleeding at easily accessible locations and an INR between 2.0 and 3.5. Exclusion criteria included more severe bleeding, an INR outside the standard therapeutic range and locations

that were difficult to access (e.g. the gastrointestinal tract). All patients presented with 2 or more episodes of bleeding per day for more than 3 days prior to the consultation. Complete blood tests and coagulograms (INR- relation normalized international) were performed on the day of the consultation and after 8 days. Patients were administered 75 mg aminaphtone 2 times daily and were requested to monitor bleeding; in cases of more severe bleeding they were advised to return immediately to the clinic.

RESULTS

Four of the 7 patients were men; ages ranged between 47 and 71 years old. For 5 patients the bleeding was controlled within 48 h and for another patient, within 96 h. The final patient suffering from bleeding gums presented with an improvement; however bleeding did not stop completely. The bleeding in this case occurred after brushing teeth. After initiating treatment with aminaphtone the patient reported that the bleeding was less with episodes every 2 or 3 days. The patient's progress was monitored for 1 month without the drug interfering in the anticoagulation. After the first week, the INR remained within the therapeutic range.

DISCUSSION

The current study shows improvements in the bleeding of nose and gums of patients on anticoagulation. Despite the small number of participants, this study opens a new possibility of treating selected cases of patients suffering from minor bleeding but without anemia or evident risk of other complications. Doubts related to the effect on the levels of anticoagulation, even when they are within the therapeutic range, are commonly experienced in daily practice. The hypothesis is that these patients present alterations in capillary

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fragility, and so aminaphtone improves the fragility thereby treating the cause of bleeding. Most cases of gum bleeding result from self-inflicted injuries, generally during oral hygiene and specifically due to too vigorous brushing of teeth or toothbrushes with very hard bristles.

Aminaphtone is a bioflavonoid that increases capillary resistance by the inhibition of hyaluronidases [5]. There are few published reports related to this approach, however there are case reports showing significant improvements in spontaneous and chronic epistaxis in 2 patients [6, 7]. The blood losses occurring during multiple dental extractions under general anesthesia in pretreated patients have been measured. The results obtained have been processed statistically and confirm the effectiveness of the product [8]. The case report describes control of Schamberg's disease using aminaphtone [9]. A preliminary *in vitro* study suggested that aminaphtone, a naphthohydrochinon used in the treatment of capillary disorders, may downregulate the expression of adhesion molecules in endothelial cells. In a pilot study of a select group of patients with systemic sclerosis, aminaphtone was associated with the downregulation of sELAM-1 and sVCAM-1 concentrations [10].

These findings reinforce the necessity of additional research involving multicentre studies aiming at confirming possible mechanisms of action of these drugs.

Minor bleeding in patients on oral anticoagulants, without risk of more severe complications, may benefit from the use of aminaphtone as an initial therapeutic option.

However, few clinical studies evaluating this drug. There is a need to better assess the interactions with other drugs such as anticoagulants.

CONFLICT OF INTEREST

The study did not receive any type of financial contribution and the authors confirm that there is no conflict of interest

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