Apixaban to Prevent Venous Thromboembolism in Patients with Cancer

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Journal Title: The New England Journal of Medicine

Date, issue, pages of publication: February 21 2019 N Engl J Med 2019; 380:711-719

DOI: 10.1056/NEJMoa1814468

Introduction

This is a study to evaluate the efficacy and safety of apixaban (2.5 mg twice daily) for thromboprophylaxis in ambulatory patients with cancer who were at intermediate-to-high risk for venous thromboembolism.

Method and Design

From February 2014 through April 2018, at 13 centres in Canada a randomized, placebo-controlled, double-blind clinical trial . 563 were included in the modified intention-to-treat analysis, 288 in apixaban group and 275 in placebo group. All of them needed to have a Khorana score ≥2 . Duration of study 180 days

Result

VTE occurred in 12 of 288 patients (4.2%) in the apixaban group and in 28 of 275 patients (10.2%) in the placebo group (hazard ratio, 0.41; 95% confidence interval [CI], 0.26 to 0.65; P<0.001). During the treatment period, major bleeding occurred in 6 patients (2.1%) in the apixaban group and in 3 patients (1.1%) in the placebo group (hazard ratio, 1.89; 95% CI, 0.39 to 9.24).

Conclusion

Apixaban therapy resulted in a significantly lower rate of VTE than did placebo among intermediate-to-high-risk ambulatory patients with cancer who were starting chemotherapy. The rate of major bleeding episodes was higher with apixaban than with placebo.

Limitations and analysis

Parenteral thromboprophylaxis can reduce the risk of VTE among ambulatory patients undergoing chemotherapy, it is not routinely recommended in practice guidelines because the absolute risk reduction is modest and parenteral thromboprophylaxis is associated with an increased risk of major bleeding, high cost, and the inconvenience of daily injections. (1)In high-risk ambulatory patients with cancer, treatment with rivaroxaban did not result in a significantly lower incidence of venous thromboembolism in the 180-day trial period. High bleeding risk patient eg hepatic disease associated with coagulopathy; a cancer diagnosis consisting solely of basal-cell or squamous-cell skin carcinoma, acute leukemia, or myeloproliferative neoplasm; a planned stem- cell transplantation, EGFR less then 30, Platelets less than 50 was excluded in this trial. A larger group of the same trial could yield more accurate results.

Applicability /Future

Khoranna score is a very useful tool in order to assess the risk of VTE among ambulatory cancer patient and it is readily available in medcalc. The risk is bleeding is lower than LMWH and we have Andexxa as factor Xa inhibitor antidote which can be made available in our centres. The use of Apixaban in prevention of stroke, Afib and VTE prophylaxis is all relevant further topic of research and a formulation of a longer acting analogue i.e a OD dose rather than a BD dose would facilitate compliance further.

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