

Introduction

chronic warfarin anticoagulation is the most effective therapy for attenuating the risk of stroke associated with atrial fibrillation. The target INR is within 2.5 – 3.5, but even in this therapeutic dose, the hemorrhagic complications could develop.

Methods & Demographic data

We reviewed retrospectively patient’s records for the last ten years from 2004 to 2013 in our cardioneurovascular center. Surgery was performed by one neurosurgeon. We excluded the patients who had trauma history or initial INR level was higher than 3.5.

M:F (20:34) = 0.56 : 1

Mean coumadin dose; 3.73 mg

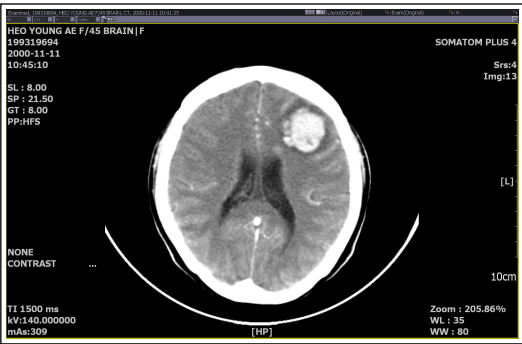
Mean PT INR : 2.74 (2.0 - 3.04)

lobar hemorrhages : 28 cases

subdural hemorrhages : 26 cases

reoperation rate : 11 % (6/54 cases)

overall mortality : 29.6 % (16/54 cases)



illustrative case

A 59-year-old woman who is taking coumadin after open heart surgery presented with headache. Initial CT demonstrates left frontal lobar hematoma.

Results

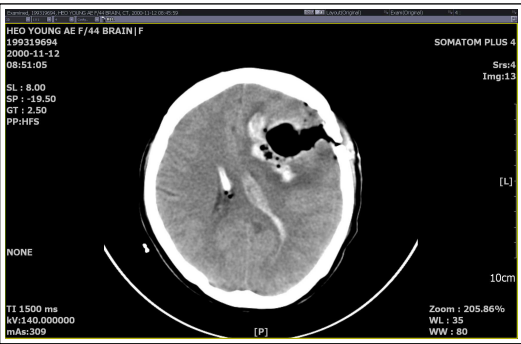
The mean coumadin dose was 3.73 mg and their mean initial PT INR was 2.74 (ranging from 2.0 to 3.5). There were 54 patients who underwent surgery by the intracranial hemorrhage within target range of INR. Mean age was 60.2 years old and M:F ratio was 0.56 : 1 (male : 20 patients, female: 34 patients) The lobar ICH was slightly more common than the subdural hematoma (28 to 26 = 1.07: 1). The reoperation rate was higher with 11 % (6/54 cases). The overall mortality was 29.6 % (16/54) much higher than the 10 % mortality rate of usual hypertensive ICH, but lower than the usual 65 % fatality of coumadin-related ICH.



CT scan after 6 hours from the initial CT, demonstrating expansion of hematoma. Pt’s neurologic condition suddenly deteriorated and the patient underwent craniotomy and hematoma evacuation.

Conclusion

intracranial hemorrhage could occur within the target therapeutic range of INR who is taking coumadin. if the patient complains severe headache, we should check the brain CT scan to rule out hemorrhagic lesion.



Pod #1, the hematoma sufficiently removed and EVD catheter also inserted.