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THE CASE
Postoperative Anticoagulation for a Patient With Surgically Treated SDH and Intermittent Atrial Fibrillation

SURVEY RESULTS SUMMARY
A majority of respondents to this online survey, 40 percent, said that they would never restart heparin given the circumstances of this case. Twenty-one percent of respondents would wait at least five days, 7 percent would wait one week, and 29 percent would restart heparin after two weeks. Two respondents commented that they would restart anticoagulation with Coumadin rather than heparin and one would consider Lovenox on the second day postsurgery. The top factors influencing decision-making in this case were the history of falls and the presence of an underlying medical condition, followed by postoperative CT, discharge disposition (home, rehabilitation, other facility), and postoperative neurological status. When asked who should make the decision about how and when to restart anticoagulation, most respondents said the neurosurgeon, followed by the cardiologist, the patient’s family, and the primary care physician.

CASE COMMENTARY

Teasing out a consensus for restarting anticoagulation therapy in a patient with atrial fibrillation who has just had a subdural hematoma raises several issues that must be considered in formulating a treatment plan. One must first evaluate the risk stratification for a patient carrying a diagnosis of atrial fibrillation (5). It is generally accepted that the overall risk for stroke in a non-anticoagulated patient with atrial fibrillation is approximately 5 percent per year. However, this risk may temporarily increase to 20 percent for those who have recently been diagnosed with a stroke (2, 4).

Secondly, there is a theoretical basis for how neurosurgeons time the restart of anticoagulation therapy, other than anecdotal experience. Some neurosurgeons consider restarting anticoagulation within three to five days when gliosis becomes apparent through peak production of astrocytes and GFAP at the site of injury (3). Others may wish to wait one-to-two weeks based on maturation of healing (2). Consultation with the patient and the family might include the information that risk of stroke exists, extrapolated to be approximately 0.2 percent every two weeks, and that as small as this number seems, strokes do occur (see figure).

Further complicating these decisions are the general health of this population of patients, which includes variables such as elderly patients with a history of falling, cancer patients with coagulopathies, and patients with complicated anticoagulation histories associated with drug interactions (1, 5). Consensus, therefore, is more likely to be achieved in the “healthy” or an equivocal-risk subset of atrial fibrillation patients after subdural hematoma. In our experience, this group of “healthy” patients receives oral anticoagulation starting day five, reflecting the preoperative medication schedule.

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References

Additional comments on this case were published in AANS Neurosurgeon 16(4):41, 2007.

The patient, a 76-year-old female on long-term warfarin therapy for chronic atrial fibrillation, presented with right subdural hematoma after falling. Patient coagulation status was supratherapeutic on admission and subsequently reversed prior to subdural drainage. Two days following surgery, the patient developed left middle cerebral artery ischemic infarct.