New Oral Anticoagulants and Pituitary Apoplexy

Letter:

New oral anticoagulants (NOAs) are used in an increasing number of patients, because several studies have shown a lower risk of bleeding complications and thromboembolic events with NOA if compared with well-known previous anticoagulants. NOAs have different targets on the biochemical coagulation cascade. Because of their predictable pharmacokinetic and pharmacodynamic effects, generally no monitoring is required. The most common ones are apixaban, edoxaban, and rivaroxaban, which directly inhibit factor Xa, whereas dabigatran works as a direct thrombin (IIa) inhibitor. Warfarin is especially effective in primary and secondary stroke prevention, but patients need a constant monitoring of international normalized ratio index.[1]

To date, previous studies have shown that the use of NOAs has to be considered for a better management in patients with atrial fibrillation or as secondary prevention after cardioembolic stroke instead of the traditional old anticoagulants drugs.[2] NOAs may offer several advantages over warfarin, including fewer drug interactions, more predictable anticoagulation, and lower risk of bleeding in treatment of venous thromboembolism in older adults.[3]

We read with great interest the paper by Senger et al.,[2] who reported their management of patients on NOA and with different intracranial bleedings, including traumatic intracranial bleeding and spontaneous intracranial hemorrhage. We would like to add to their report our recent experience with NOA and pituitary apoplexy.

We previously described the case of a 76-year-old woman who was on dabigatran for atrial fibrillation and presented with pituitary apoplexy that required surgical treatment.[4] Herein, we would like to report on a 76-year-old man who presented with pituitary apoplexy in a previously undiagnosed pituitary macroadenoma. This gentleman presented with headache of subacute onset followed by general asthenia, impairment of consciousness, and transient episodes of diplopia. Neuroradiologic evaluations revealed a pituitary hemorrhagic lesion suggestive of pituitary apoplexy.

Hormonal screening documented partial anterior hypopituitarism. The patient had been on apixaban for 1 year for atrial fibrillation. An endoscopic transsphenoidal approach confirmed the hemorrhagic pituitary adenoma. Transient diabetes insipidus was evident in the first postoperative week. At 3 months, magnetic resonance imaging confirmed total removal, the patient remains on substitutive therapy but is back to his preictal life, including active sport activity.

Both cases we experienced could be treated a few days after discontinuation of NOA and had an uneventful postoperative course with a satisfactory outcome. They fully recovered from their neurologic deficits, probably also thanks to the relatively small dimensions of the lesions and their complete removal. In the last 2 years, of 15 patients who underwent surgery for pituitary apoplexy in our centre, 5 were on antiplatelet therapy, 1 on warfarin, and 2 on NAOs.

To the best of our knowledge, only 1 other patient, on dabigatran and presenting with apoplexy of a known pituitary adenoma, has been reported: this 85-year old man did not undergo operation and recovered almost completely from his third cranial nerve palsy.

Pituitary apoplexy is a clinical condition that occurs secondary to hemorrhagic or infarctive expansion of a preexisting pituitary adenoma[5,6]; therefore, as neurosurgeons, we need to be aware that it is another possible intracranial complication of NOA and shall be prepared to treat these patients, when appropriate.

Francesco Doglietto[1], Elena Roca[1], Giuseppe La Rocca[1], Alberto Schreiber[2], Andrea Bolzoni Villaret[2], Piero Nicolai[2], Marco Maria Fontanella[1]

From the [1]Units of Neurosurgery, Department of Surgical Specialties, Radiological Sciences, and Public Health and [2]Otorhinolaryngology—Head and Neck Surgery, Department of Surgical Specialties, Radiological Sciences, and Public Health, University of Brescia, Brescia, Italy

To whom correspondence should be addressed: Francesco Doglietto, M.D., Ph.D. [E-mail: francesco.doglietto@unibs.it]

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