学 位 論 文 の 要 旨

氏名　　小林　祥也

学 位 論 文 名 : Use of Anticoagulant or Antiplatelet Agents Is not Related to Epistaxis in Patients Undergoing Transnasal Endoscopy

発 表 雑 誌 名 : Endoscopy International Open
（巻，初頁～終頁，年） (in press)

著 者 名 : Yoshiya Kobayashi, Yoshinori Komazawa, Mika Yuki, Hitomi Ishitobi, Makoto Nagaoka, Yoshiko Takahashi, Sayaka Nakashima, Toshihiro Shizuku, Yoshikazu Kinoshita

論 文 内 容 の 要 旨

INTRODUCTION

Unsedated transnasal esophagogastroduodenoscopy (uTNE) is a safe alternative transoral approach for endoscopic examination of the upper gastrointestinal (GI) tract and shown to be well tolerated by patients. In general, the most common complication associated with TNE is epistaxis, with incidence rates ranging from 1-5% in several studies, though the symptoms are usually mild and limited. However, the relationship between epistaxis and patient characteristics in regard to medication administration is unclear. Notably, no study of that association in patients receiving antithrombotic treatment for cerebrovascular or cardiovascular diseases, such as anticoagulant or antiplatelet agents, has been presented, though it is generally considered that administration of anticoagulant or antiplatelet medication is associated with an elevated risk of epistaxis during TNE. In the present study, we investigated risk factors for epistaxis in patients undergoing TNE and receiving antithrombotic treatment.

MATERIALS AND METHODS

This observational case control study was performed from April 2014 to March 2015 at Izumo City General Medical Center, Shimane, Japan. During that period, we performed upper GI

examinations in 7084 patients. Finally, a total of 6860 consecutive examined patients were analyzed (average age 55.6±12.97 years; 3405 males, 3455 females). Each was given a questionnaire regarding administered medications, including anticoagulant and antiplatelet agents, prior to the endoscopic examination. Preparation for TNE was performed in the same manner for all cases. Routine examination procedures with an ultrathin endoscope were used, with biopsy samples obtained if clinically indicated. When insertion through the anesthetized nostril was not possible, the insertion route was changed to the other side. If both nostrils showed difficulty with insertion because of nasal pain or narrowness, that patient was excluded from analysis. The diameter of the ultrathin endoscope used was 5.9 mm (EG-580NW or EG-580NW2, Fujifilm, Tokyo, Japan) or 5.5 mm (GIF-XP 260N, Olympus, Tokyo, Japan), with the type randomly selected. An inferior nasal meatus or middle nasal meatus insertion route was chosen at the discretion of the attending endoscopist. Following TNE, epistaxis was evaluated during withdrawal of the scope through the nostril and classified as none (-), mild (+), moderate (++), or severe (+++).

Written informed consent was obtained from each patient regarding the transnasal EGD procedure. The study protocol was approved by the ethics committee of Izumo City General Medical Center.

RESULTS AND DISCUSSION

Epistaxis occurred in 3.6% (245/6860) and the rate was significant higher in younger patients (average age 49.31±11.8 years in epistaxis group vs. 55.83±13.0 years in no epistaxis group, $p<0.01$). Furthermore, epistaxis occurred more often in females (4.78% vs. 2.35%, $p<0.01$). There was no significant difference related to the diameter (5.5 or 5.9 mm) of the endoscope utilized ($p=0.064$). Patients receiving antithrombotic agents comprised 3.4% (n=233) and their average age was significantly older as compared to those not receiving antithrombotic agents (70.7±10.5 vs. 55.1±12.7 years, $p<0.01$). Moreover, there was no significant difference for epistaxis rate between those who received and did not receive antithrombotic agents (3.0% vs. 3.6%). All cases of epistaxis were self-limited and 85% were classified as mild (+), while the remaining were moderate (++). None of the enrolled cases showed delayed epistaxis or required consultation with an otolaryngologist. Multivariate logistic regression revealed that the risk factors for epistaxis were age and gender, with an odds ratio of 2.31 (95%CI: 1.746-3.167) for younger age and 2.02 (95% CI: 1.542-2.659) for females.

In the present study, epistaxis occurred in 3.6% of the 6860 enrolled patients and, most importantly, that rate was approximately equal between those who were and were not receiving antithrombotic agents. Previous studies have reported epistaxis rates ranging from 1-5%, the vast majority of which were self-limited, the same as seen in the present study. Nevertheless, little is

known regarding risk factors for epistaxis associated with TNE, especially in patients who are receiving antithrombotic agents. To the best of our knowledge, this is the first report of the involvement of epistaxis in individuals receiving antithrombotic agents.

CONCLUSION

The rate of epistaxis was higher in younger and female patients. Importantly, that rate was not significantly increased in patients who were administered an antithrombotic agent. We concluded that TNE can be performed safely even in elderly patients without cessation of antithrombotic agents.