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**Analiza interwencji endoskopowych
podjętych w trybie dyżurowym w ostrych krwawieniach
z górnego odcinka przewodu pokarmowego.**

**Rozprawa na stopień doktora nauk medycznych i nauk o zdrowiu
w dyscyplinie nauki medyczne**

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SUMMARY

Analysis of endoscopic interventions undertaken while on duty in acute upper gastrointestinal bleeding.

Introduction: Acute Upper Gastrointestinal Bleeding (AUGIB) is a life-threatening condition, and gastroscopy is the diagnostic and therapeutic standard in patients with its symptoms. In multi-profile hospitals with endoscopic facilities, appropriately trained teams are on duty 24 hours a day to ensure the appropriate treatment for patients with symptoms of acute UGIB.

Aim of the study: The aim of the study was characterization of patients with acute AUGIB and to determine the factors influencing the effectiveness of performed emergency on-call endoscopic treatment of bleeding from the upper gastrointestinal tract.

Material and methods: A single-center retrospective study was conducted, which included patients of the Central Clinical Hospital of the University Clinical Center of the Medical University of Warsaw who presented symptoms of AUGIB between 2016 -2020. The impact of patient-independent factors on the success of endoscopic therapy was analyzed and the procedure and effectiveness of treatment were compared depending on the etiology of bleeding, time of day and the time elapsed from the onset of symptoms to the time of endoscopic procedure

Results: Among 752 endoscopic interventions, mainly in men (64%) with an average age of 61 years, 44% were non-variceal bleeding, 23% were variceal bleeding, and in 33% of the subjects no signs of active bleeding were found during gastroscopy. In 592 people, gastroscopy was performed during the day, i.e. from 8:00 a.m. to 10:00 p.m., and in 160 people at night, i.e. from 10:00 p.m. to 8:00 a.m. The average number of points obtained on the prognostic scales in patients referred for emergency endoscopic therapy was 3 [1-4] in the Rockall Score and 10 [6-12] in the Glasgow-Blatchford Score, respectively. People with no signs of active bleeding had significantly lower urea concentrations than people with active, especially non-variceal AUGIB. Among procedures performed during the day, the time from the onset of symptoms to endoscopy was on average 10 hours (IQR 6–15) compared with 6 hours (IQR 4–16) in the group of procedures performed at night. The endoscopic effectiveness of procedures performed during the day is 85.2%, and procedures performed at night is 77.6%.

It was also lower in the case of variceal bleeding. Endoscopic intervention performed 6 hours after the onset of bleeding symptoms improved the results and increased the chance of effectiveness compared to procedures performed up to 5 hours after the onset of symptoms, regardless of the etiology. In the case of procedures performed during the day, the highest effectiveness was recorded for interventions performed 10 hours after symptoms, and at night after 8 hours. Although the 120-day mortality rate was higher in the group of patients who had gastroscopy performed at night, regardless of etiology, the difference was not statistically significant.

Conclusions: The effectiveness of endoscopic procedures in bleeding from the upper gastrointestinal tract depends on the cause of the bleeding, and non-variceal bleeding has a greater chance of therapeutic success. Procedures performed at night are less effective and require repetition more often than procedures performed during the day. Extending the time from the onset of AUGIB symptoms to endoscopic intervention, with appropriate pharmacological and non-pharmacological preparation of the patient, increases the effectiveness of endoscopic treatment. Therapeutic gastroscopy in emergency cases of acute upper gastrointestinal bleeding may be similarly effective both during the day and at night if performed after the sixth hour after symptom onset. It has also been shown that the high concentration of urea significantly correlates with the presence of bleeding from the upper gastrointestinal tract, regardless of the etiology.