Monitoring and Treatment of Acute Gastrointestinal Bleeding

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Acute Gastrointestinal bleeding—Massive acute bleeding from gastrointestinal section is one of the most frequent forms of acute abdomen. The mortality degree in emergency surgery is about 10%. It’s very difficult to identify the place of bleeding and etiology. Purpose: The important purpose of this research is to present the cases of acute gastrointestinal bleeding from the patients which were monitored and treated at The University Clinical Center of Kosova—Emergency Center in Pristina. Material and methods: These inquests included 137 patients with acute gastrointestinal bleeding who were treated in emergency center of The University Clinical Center in Pristina for the period from January 2005 until December 2006. Results and discussion: From 137 patients with acute gastrointestinal bleeding 41% or 29% was female and 96% or 70.1 % male. Following the sex we gained a high significant difference of statistics (p <0.01). The gastrointestinal bleeding was two times more frequent in male than in female. Also in the age-group we had a high significant difference of statistics (p<0.01) 63.5 % of patients were over 55 years old. The mean age of patients with an acute gastrointestinal bleeding was 58.4 years SD 15.8 age. The mean age for female patients was 56.4 age SD 18.5 age. The patients with arterial systolic pressure under 100 mmHg have been classified as patients with hypovolemic shock. They participate with 17.5% in all prevalence of acute gastrointestinal bleeding. From the number of prevalence 2(1.5%) patients have been diagnosed with peptic ulcer, 1[0.7%] as gastric perforation and 1[0.7%] with intestine ischemia. Abdominal Surgery and Intensive Care 2 or 1.5% died, 1 at intensive care unit and 1 at nephrology. Conclusion: As we know the severe condition of the patients with gastrointestinal bleeding and etiology it is very difficult to establish, we need to improve for the better conditions in our Emergency Center for treatment and initiation base of clinic criteria. Key words: Acute Gastrointestinal bleeding, Emergency Centre, University Clinical Center of Kosova.

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1. INTRODUCTION

Acute gastrointestinal bleeding is presented with haemetemesis or mealena and can be acute and often causing hemorrhagic shock, or chronic which appears with clinical signs such is sideropenic anemia (1-10). Frequent causes of acute gastrointestinal upper bleeding are: peptic ulcer, gastritis (from alcohol, aspirin, non-steroid anti inflammatory drugs, stress) oesophagitis, Mallory-Weis rent, varicose gastroezofageal, arterial-venous malformations, telangiectasia, lesions of blood vessels in submucosae, vascularitis, connective tissue diseases, neurofibromae, amyloidosis, haemofilia, etc. Other rarely causes of upper gastrointestinal bleeding are responsible for less than < 2% etc. (11-20).

Clinical features

Evaluation of degree of bleeding should be done after emergency establishment of hemodynamic parameters. Anamnnessis

Haemetemesis, mealena, pain in upper part of abdomen, signs of hypovolemic shock, age, untreated ulcer disease (oesophagitis, varicose, hemorrhagic diathesis, use of anti inflammatory non-steroid drugs and alcohol, etc. (1, 2, 7, 21-30).

Physical Examination

Hypotension (systolic pressure <100mmHg and tachycardia (>100/ min) indicates for hypovolemic shock, chronic illness undetected and untreated, portal hypertension from hepatic cirrhosis (hepatomegaly or ascitis) lymphadenopathy with hepatomegaly (esophageal or gastric malign), examination digioretal (verification of melena) (9, 11, 17, 31-35). System risk according to Rockall’s Risk assessment of recurrence bleeding and mortality, includes clinical and endoscopic factors. Rockalls calculation is based
on: age of patient, presence of hemodynamic shock and other associated diseases. Rockall risk score carries a special importance in assessing the needs of urgent gastroscopy (19, 36–41).

Treatment of Upper GI bleeding
Primary step in the treatment is placement of the nasal tube for irrigation-pump-suction (aspiration) with saline, using of alkaline solution through nasal route, if it continues bleeding, place urinary catheter to measure urinary debit. Upper gastrointestinal endoscope enables diagnosis and better evaluation the degree of risk (8, 14, 21, 33, 40).

Rate CHILD
Besides the general principles RESUSCITATION gastrointestinal bleeding, in patients with portal hypertension there are some specific issues such as: In each patient should be immediately Child scales in order to have a mirror for one prognosis (17, 20, 23.24, 26).

Treatment of acute bleeding from esophageal varice consists in: resuscitation, pharmacological therapy, balloon tamponade, endoscopic therapy, shunts Porto systemic intrahepatic transjugular (TIPS) and surgical shunts (29, 42-50).

The two most common causes of upper bleeding in adults are diverticulitis of colon and angiodysplasia. Bleeding from the diverticulitis of colon are more presented especially in the elderly ages. Bleeding may be furious, because of rupture of arteries. To 20-25% of patients bleeding can be repeated (45, 46, 47).

Clinical features
Anamnesis: How and when started the bleeding? The color of blood? The blood is mixed with the stool or is on the surface? Have you noticed blood drops on paper or toilet? Accompanied by bleeding or diarrhea or abdominal pain? Presence of bleeding before? Weight loss? A history of the arterio-sclerotic disease? Is there a medical history of the colonic polypectomy? A family has inflammatory intestine disease or colorectal cancer? (42, 43, 48, 52).

Treatment of Lower Gastrointestinal Bleeding
Most important emergency action, first action is to undertake reanimation measures. Once identified bleeding problem, we should placed the patient in Trendelenburg position. Provide one or two intravenous access with 0.9% normal saline or ringer lactate solutions, to take the blood for analysis in laboratory for biochemical, hematological, gasometry, to determine blood group, balance the homeostasis and require other examinations by the clinical build and other medical measures (33, 35, 37, 43, 53).

The bleeding from colon polyps or angiodysplasia
Adrenalin diluted (1:10000, 2-10 ml), Heater Probe (Gold Probe, Microvasive, 10-15 W with for a-second). Oktreotide, subcutaneously, 3 times a day, bleeding from the colon diverticulitis: colonoscopy, within 12 hours after the beginning of bleeding, dilute Adrenaline 1:10000, from 1-2 ml. Bipolar coagulation (Gold Probe, 10-15 W with pulsation for a-second).

Infectious Colitis: antibiotics (e.g. Ciprofloxacin), perianal disease: hemorrhoids: infrared coagulation, or radiofrequencies – coagulation directly, band ligation, sclerotherapy or surgical treatment. Anal Fissure: 0.2% ointment glycerin trinitrat. Rectal Prolapsed: surgical treatment. Inflammatory intestinal disease: metronidazole, ciprofloxacin, aminosalicate, and corticosteroids (1, 4, 6, 9, 15, 17, 36, 52).

2. PURPOSE OF THIS WORK
Presentation of cases of acute gastrointestinal bleeding in patients monitored and treated in the Emergency Centre in Pristina UCCK. In particular it will analyze: the location and localization of bleeding in different parts of digestive tract. Causes and mechanisms of acute gastrointestinal bleeding, and goals of treating in acute gastrointestinal bleeding.

3. MATERIAL AND METHODS
Survey data from the protocol taken from our patients with acute gastrointestinal bleeding, monitored and treated in Emergency Center of UCCK in Pristina. The research was conducted on the basis of anamnesis data, the status of vital parameters, results of objective examination, diagnostic-research laboratory, radiological, statistical parameters, the index structure, arithmetic average and standard deviation. Statistical tests: X2-test and t-test. Verification testing is done to confidence level of 95% and 99%, respectively p <0.01 and p <0.05.

4. RESULTS
The research involved 137 patients with acute gastrointestinal bleeding monitored and treated in the Emergency Center of UCCK for the period January 2005–December 2006. In
2005 were treated 90 patients or 65.7% in 2006 and 47 or 34.3% (Table 1 and Chart 1).

From 137 patients with acute bleeding from the gastrointestinal tract, 41 or 29.9% were female and 96 or 70.1% male. By sex, have earned the distinction with high statistical significant (X2 test = 22.1, p<0.01). Bleeding from the gastrointestinal tract where twice higher in male gender than in female gender (Diagram 2).

Even by age group we have earned the distinction with high statistical significant (X2-test = 76.9, p<0.01). 63.5% of patients were older than 55 years (Chart 3). With t-test we have not earned the distinction with significant statistical importance in middle-aged women and man (T-test = 0.98, p> 0.05) (Chart 4).

Under the settlement, of 137 patients treated from GI-bleeding in Emergency Center, 43 or 31.4% were residence in village and 94 or 68.6% were residence in the city. With the X2-test we have reached the distinction with significant statistical importance by residence of patients (X2-test = 18.9, p<0.01).

Patients who had blood pressure below 100 mmHg systolic and pulse over 100 beats per minute were grouped as patients with the hypovolemic shock. (Diagram 5 and Chart 5).

From the 137 patients involved in research, in recognition of 59 cases (43.1%) they had vomiting with blood, 50 cases (36.5%) melaena, 27 cases (19.7%), palely, and one case (0.7%) shock. From the 137 patients involved in research, in recognition of 59 cases (43.1%) they had vomiting with blood, 50 cases (36.5%) melaena, 27 cases (19.7%), palely, and one case (0.7%) shock. GI- bleeding where more frequently in patients residing in the city from 96 males 63 or 65.6% we re from the city (75.6% vs. 65.6%). (Table 5 and Chart 5).

Vital Signs: Percentage of O₂ saturation average was 94.3% (standard deviation ± 5.0%). Range from 78% to 99%. Average pulse was 99.2 beats per minute (standard deviation ± 9.22). Range from 60 to 170. The average value of systolic blood pressure was 113.8 mmHg (standard deviation ± 26.0). Minimum 55 and maximum value 220. The average value of diastolic blood pressure was 68.9 mmHg (standard deviation ± 6.17). Minimum 20 and maximum value 140 (Table 7).

Patients who had blood pressure below 100 mmHg systolic and pulse over 100 beats per minute were grouped as patients with the hypovolemic shock. They were attended by 13.7% in the total number of patients with acute gastrointestinal bleeding (Chart 8).

Etiology of acute gastrointestinal bleeding is difficult to detect. From total number, two (1.5%) patients were diagnosed as peptic ulcers, one (0.7%) perforation of stomach and one (0.7%) ischemia of the intestine (Chart 9).

Gastro endoscopic results show that the most frequent form was ulcer and chronic gastritis (Table 13). With colonoscopy is revealed: one case of carcinoma of the colon ascendant, a case of internal hemorrhoids nodule and a case with erosive gastroduodenitis after emergency treatment, 96 patients (70.1%) were transferred in Gastroenterology, 18 patients (13.1%) at home, 9 patients (6.6%) in Abdominal Surgery, 9 patients (6.6%) in Intensive Care Treatment, 2 in Post intensive care, 2 in Nephrology, 1 and 2 cases (1.5%) died (Diagram 10).

On the basis of final diagnosis of 137 patients: 110 or 80.3% had the bleeding from the upper gastrointestinal tract and 27 or 19.7% of the lower gastrointestinal tract (Diagram 11).

5. DISCUSSION

From 137 patients with acute bleeding from the gastrointestinal tract, 41 or 29.9% were female and 96 or 70.1% male. By sex, we have earned the distinction with high statistical significance (X2-test = 22.1, p<0.01). Bleeding from the...
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gastrointestinal tract where twice as frequently in male than in female gender. Even by age group have earned the distinction with high statistical significance (X2-test = 6.9, p <0.01). 63.5% of patients were older than 55 years. The average age of patients was 58.4 years GI-bleeding (SD ± 15.8 years). The average age of women was 56.4 years (SD ± 18.5 years). Youngest was 19 years and 89 years old. The average age of men was 59.3 years (SD ± 14.5 years).

With t-test have not earned the distinction with important statistical significance middle-aged men and women (t-test = 0.98, p > 0.05). Under the settlement, of 137 patients treated from GI-bleeding at Emergency Center at UCCK 43 or 31.4% where residence in village and 94 or 68.6% were residence in the city. With the X2-test we have earned the distinction with important statistical significance by residence of patients (X2-test = 18.9, p < 0.01). Acute gastrointestinal bleeding where more frequently in patients residing in the city compared with those in the countryside.

The distribution of cases by sex and residence we have not earned the distinction with important statistical significance (X2-test = 0.9, p > 0.05). Of 41 women 31 or 75.6% were from city and from 96 men 63 or 65.6% were from the city (75.6% vs. 65.6%). From 137 patients involved in research, on admission 59 or 43.1% had vomiting with blood, 50 or 36.5% melena 27 or 19.7%, or paleness and one 0.7% average of shock condition. Average percent of saturation of O2 was 94.3% (standard deviation ± 5.0%). Range from 78% to 99%. Average pulse and mortality from acute upper gastrointestinal hemorrhage in the United Kingdom. Steering Committee and members of the National Audit of Acute Upper Gastrointestinal Hemorrhage. BMJ. 1995; 311: 22.


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Etiology of acute gastrointestinal bleeding is difficult to find. From the total number, two (1.5%) patients were diagnosed as ulcers in stomach, one (0.7%) perforation in the stomach and one (0.7%) ischemia of intestine The result of the gastroendoscopie of intestine shows that most frequent form were ulcers and chronic gastritis. The colonoscopy has found one case of carcinoma in colon ascendant, a case of internal hemorrhoids nodule and a case with erosive gastroduodenitis. From the seven cases on which the x-rays of the abdomen was made only one case was detected pathological. Out of seven echo of abdomen four were without pathology, one liver cirrhosis with cholelithiasis, a stomach with thick walls and an abdominal tumor with metastasis to the liver organ.

6. CONCLUSION

During treatment of patients with gastrointestinal bleeding in the Emergency Center in Prishtine, as appropriate specialists are consulted from other medical areas. Gastroenterologist doctor was consulted in 89.1% of cases, abdominal surgeon and a cardiologist in 35.8% to 13.1% of cases. After emergency treatment, 96 or 70.1% are transferred to the Gastroenterology department, 18 or 13.1% at home, 9 or 6.6% in abdominal surgery and 9 or 6.6% in the central intensive care medication. Two patients or 1.5% have completed death.

Conflict of interest: none declared.

REFERENCES


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