

THE PREHOSPITAL MANAGEMENT OF TRAUMATIC BRAIN INJURY

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Introduction: Cerebral lesions are determined by the summation of physical, mechanical and biological factors which happened to the tissue. The role of Emergency Medical Services is essential, because the rightness of their actions rise the chances of a good survival rate.

Keywords: prehospital care, traumatic brain injury

Purpose: Quality evaluation of the Emergency Medical Services granted to patients with TBI in the acute period of prehospital and ED.

Material and methods: The information was collected in various time periods: current neurological state, initial neurological state, the evolution of neurological state. This time periods have included many clinical and paraclinical parameters according to NCP for treatment of BTI and BTF. For the processing of information it was used software database Excel 2016 and IBM SPSS Statistics 22 program.

Results: TBI by aggression 46% and ebriety in the moment of trauma 62%. The severity of TBI by GCS (3-8p.) was 80%. Hemodynamic was not stable on 98% cases. Hematomas were in 66%, contusion in 84%. In 62% it was found the deviation of medial structures and fractures were in 76%.

The study of the acts showed that 92% were admitted to the neurosurgery department with resuscitation and/or it, and 8% were admitted to the neurosurgery department (Fig.1).

One of the essential factors in providing urgent medical assistance at the pre-hospital stage is the support of qualified assisted breathing and the cardiovascular system according to the ABCDE algorithm, reducing the time parameters until the hospitalization of patients in the specialized stationary. Of the whole group studied, 60% patients had isolated trauma, but the severity of CBT according to GSC was 80% severe form (Fig. 1).

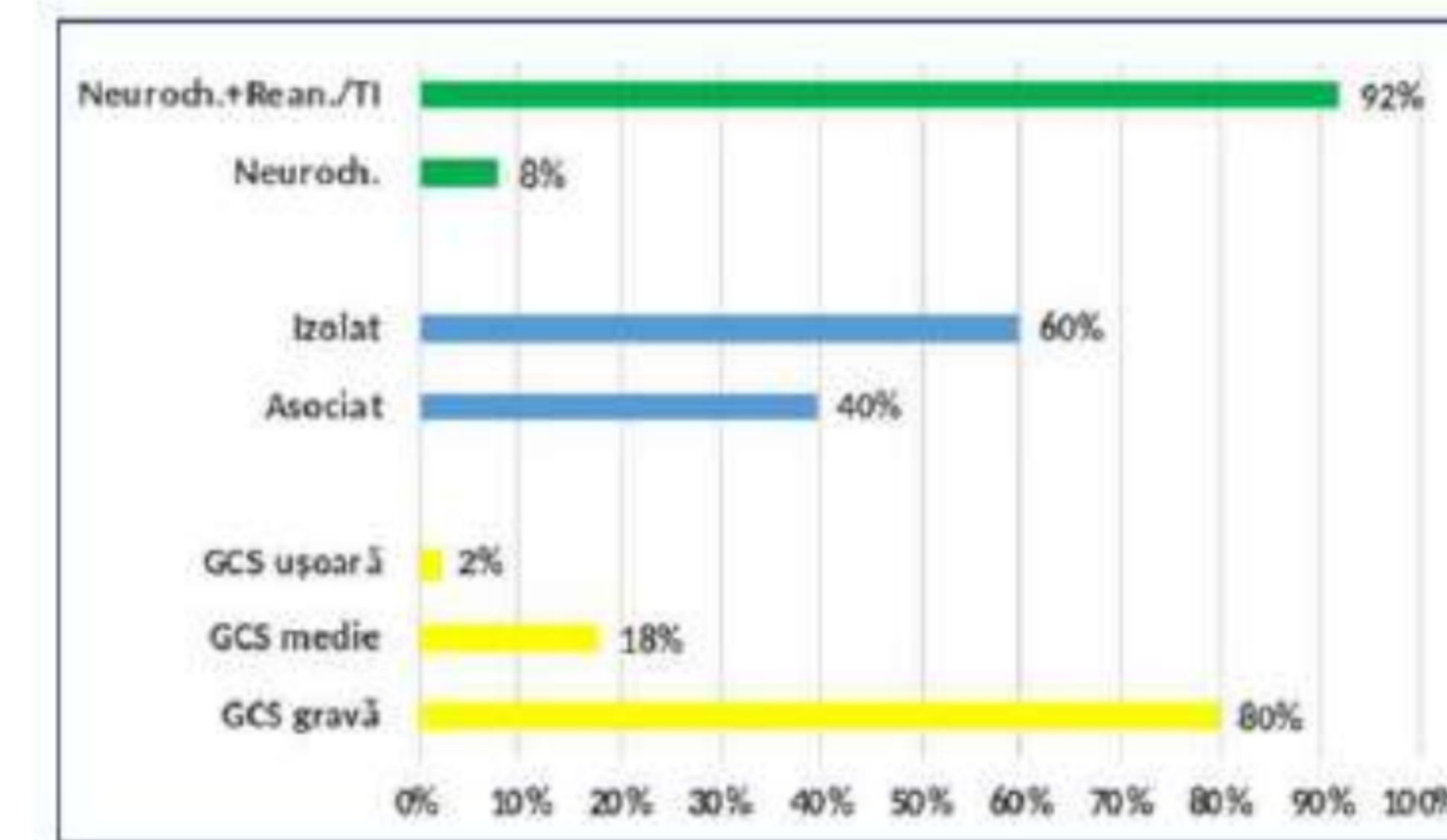


Figure 1. Distribution of patients in the Study Group



Figure 2. Distribution of patients (degree of impaired consciousness)

The percentage of cases of severe CBT in total patients corresponds to 80%; of those of average CBT is 18% and mild (minor) 2% CBT (Fig. 1). A number of 66% patients in the analyzed group were declared with CBT in a state of deep coma, 14% superficial coma, 8% sopor State, 6% deep clouding of consciousness, 4% superficial clouding and only 2% clear state of consciousness (Figure 2). However, the general breathing was pathological only in 24%, in the pre-hospital state 20% and in hospitalization 18%, this fact proves that the help provided by the AMU team is fast and effective. All patients taken over by the emergency care services, both AMU and AVIASAN had the Mainz Emergency Assessment score at the pre-hospital and inpatient stages in limits of the norm (7-28). At the same time, 74% needed surgical treatment and were initially admitted to neurosurgery. Comparing the results obtained, we can estimate the importance of transporting the patient as quickly as possible to the specialized medical institution by the AMU and AVIASAN service, and the subsequent correct provision of the necessary medical care at the DMU stage.

Conclusions: Patients with TBI with the evaluation score according GCS<8 without assisted breathing are in higher danger at transport. A successful completion of treatment of patients with TBI depends of the correct grant and in short time of the emergency medical care at the prehospital level.