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Changing Emphasis in the Management of Penetrating Large Bowel Injuries

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As a result of civil disturbance in Northern Ireland, the management of penetrating abdominal wounds has assumed an increasingly significant role, whereas the incidence of blunt abdominal trauma in road traffic accidents has decreased in recent years.

In 260 cases of penetrating abdominal trauma, the overall mortality of 14% was a reflection of the frequency of multiple-organ trauma, gross peritoneal contamination, and high velocity missile injuries.

Among 105 patients with missile injuries of the large intestine (100 gunshots, 5 bomb blasts), there were only 16 cases in which visceral injury was confined to this organ. None of these latter patients died. In 18 fatally wounded patients, a mean of 3.8 intra-abdominal or intra-thoracic organs were injured.

Urgent resuscitation is of paramount importance. Special investigation must not be allowed to lead to undue delay in undertaking laparotomy. Exploration is mandatory in all cases of abdominal gunshot injury. Primary repair, even for left-sided colonic lesions, now is practiced more widely. In more favorable circumstances, a colostomy may be omitted, e.g., if less than six hours have elapsed since the time of injury, if there is little peritoneal contamination, and if there is minimal injury to other intra-abdominal organs. In recent years, a conservative, "watching" policy has been used more widely in the management of selected abdominal stab wounds.

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Prehospital Therapeutic Strategy for Thoracic Trauma

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Thoracic trauma occurs frequently as a result of road accidents, falls, gunshot wounds, etc. For prehospital teams, a serious thoracic lesion is one of the most difficult cases to deal with. The risk of acute respiratory difficulty associated with a possible hemorrhagic collapse requires the association of several therapies: ventilatory assistance (tracheal intubation); volume replacement; thoracic drainage; placement of a military anti-shock trousers (MAST); and autotransfusion.

In cases with respiratory difficulty, the emergency physician must determine if a thoracic lesion is the cause and requires emergency drainage. The order of emergency steps is important: 1) setting up infusion and oxygen inhalation; 2) thoracic drainage; and 3) tracheal intubation and artificial ventilation. A very experienced physician may practice anaesthesia with intubation immediately followed by thoracic drainage.

Circulatory assist often is appropriate. The placement of a MAST should be considered. Use of the section around the legs is almost automatic, while the abdominal part is to be used only when the patient's thorax has been drained.

Autotransfusion is a technically easy prehospital procedure. It may be used when the drainage contains much blood and is sterile. This enables reinjection of large volumes of shed blood. This technique avoids a potentially lethal drop in hemoglobin due to filling with gelatin or crystalloid solutions. This emergency situation requires a special sterile kit to ensure maximum efficacy and optimal asepsis.

The authors will present slides of SAMU 71 practical experience.

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Jugular Bulb Metabolic Data within First 12-Hours After Severe Head Trauma

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Objective: Jugular bulb metabolic monitoring has been introduced as an indicator of adequate brain perfusion. By monitoring jugular venous oxygen saturation (SjO_2), arterial-jugular differences in oxygen content ($AjDO_2$), and jugular-arterial differences in [lactate] (jADL), the presence of ischemia can be detected ($LOI = JADL/AjDO_2 > 0.40$), hypoperfusion (SjO_2 <55%), and hyperemia (SjO_2 >80%).
Methods: A prospective analysis was made of these jugular data in 44 patients suffering from severe head injury (GCS <8), within the first 12 hours after trauma.
Results: In 13 patients, the metabolic data suggested cerebral ischemia and six patients had evidence of cerebral hypoperfusion (SjO_2 lower than 55%). Thus, more than 40% manifest either ischemia or hypoperfusion. Two patients had cerebral hyperemia (SjO_2 > 80%). Further analysis of the initial parameters is shown in the Table:

Patients		ICP	CPP	$PaCO_2$	artlact
13 (ischemia)	m:	17.2	79.5	33.4	33.8*
	sd:	9.1	24.6	8.9	19.1
6 (hypoperfusion)	m:	13.5	74.0	32.3	21.6
	sd:	6.6	19.7	4.3	13.2
2 (hyperemia)	m:	7.0	96.0	40.5	16.5
	sd:	2.8	10.6	2.1	3.5
23 (normal data)	m:	12.8	80.4	35.4	21.8
	sd:	7.1	17.3	6.3	10.3

No statistically significant (*) differences (except for the arterial lactate levels) occurred between these different groups.