Management of post traumatic unconsciousness

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This work aimed to study the value of general examination, neurological assessment, and radiological investigation of post-traumatic unconscious patients on admission, for diagnosis, treatment, and early prediction of outcome. Fifty unconscious patients due to severe head injury were studied. Their ages ranged from 16 to 72 years old with a mean of 38.94+25.05, 34 cases (68%) were males and 16 cases (32%) females. 68% of the head injuries were caused by road traffic accidents, 16% caused by work-related injuries, 10% due to falls, and 6% due to head injury by heavy blunt object. The following steps were taken for all patients:1. History:a.Present history of nature of trauma.b.Past history of previous illness if possible.2. Demographic data, which included age and sex.3. General clinical examination, which included pulse, blood pressure, and others body injuries if present.4. Neurological examination, which included Glasgow coma scale score, brain stem reflexes (pupilalry light, and oculocephalic responses).5. Radiological investigation, which included plain skull x-ray and computed tomography scan, and laboratoryinvestigation to measure the P02 in arterial blood. Data obtained from the previous steps were recorded, tabulated and correlations between them and the outcome were studied. In 25 cases (50% of total series) the CT scan detected the presence of intracranial mass lesions with midline shift >5mm which was considered an indication for surgical interference. All patients in the present study (surgical and nonsurgical cases) were treated with therapeutic agents which causes reduction in intracranial pressure.A significant association between multisystemic injuries and road traffic accidents was found in the present study, as 61.76% of head injured patients due to road traffic accident had one or more other body system injuries, while 31.25% of head injured patients due to other causes of head trauma had another body systems injuries. Also it was observed that head injury by itself does not cause hypotension, and the latter may be due to haemorrhage associated with multisystemic injuries. As 17 cases in present study were hypotensive on admission, and all of them had one or more other body system injuries, beside the head injury. As regards the neurological status on admission it was found that patients with surgical lesions tend to be worse neurologically than those with non-surgical lesions. Patients with surgical lesions had a significant higher incidence of low G.C.S score 3-5) 68%, impaired or absentoculocephalic response (64%), and bilateral unreactive pupils 56%, compared to those with non surgical lesions, in whom the percentages were 28%, 20% and 16% respectively. After 2 weeks from admission, the outcome was as follow: 54% of the cases ended in the categories of good recovery, or moderate disability (good outcome); while

46% ended in the categories of severe disability, vegetative or dead (bad outcome). Some factors were considered important in prediction of ”bad outcome”, and most of these factors could be assessed on admission.Thus ”bad outcome” increased steadily with the increasing age from 20% among the age group of 15-24 years to 75% in the age group of 65-74 years.•Patients with intracranial lesions which required surgical interference were associated with a significant higher percentage of bad outcome (60%), than those with non-surgical lesions, (32%). Moreover, the particular type of intracranila lesion also affected the outcome, as 75% of patients with acute subdural haematoma had a bad outcome, and 714.43% of patients with intracerebral haematoma had a bad outcome, while the best result was seen in patients with epidural haematoma where only 16.67% had bad outcome.•Patients with G.C.S of 3-5 on admission had a significant bad outcome (70.83%) than those with G.C.S of 6-8 (23.1%).•Also patients with bilateral unreactive pupils had a highly significant bad outcome (83.33%) than those with one or both pupils reactive (25%). Patients with, impaired or absent oculocephalic response had a significant bad outcome (71.43%) than those with normal response (27.59%).Also patients who were hypotensive or hypoxic on admission, were associated with bad outcome (52.94% and 53.33% respectively) compared to those without these insults (42.42% and 42.86% respectively).