Introduction
Traumatic brain injury (TBI), is a silent epidemic of post industrialization era. It affects young and productive people, leading to significant loss of life and economy. Among TBI, the commonest form is mild TBI. Though the name suggests the benign nature of condition in terms of risks to life, however the consequences of mild can impair general health and functioning. There is lot of variation in the management of mild TBI globally.

Degree of injury and its consequences vary, but reduced physical function, cognitive function and reduced practical and social functioning are common sequelae after TBI. In moderate to severe cases of TBI, problems and limitations regarding ADL functioning, as well as social functioning may be long lasting, sometimes life-long. Even in cases of mild to moderate TBI without significant intracranial injury one faces problems regarding work and social participation because of unregistered physical, cognitive and/or emotional sequelae due to subtle brain dysfunction and emotional reactions to trauma.

A study reveals that memory loss, the most common cognitive impairment among head-injured people, occurs in 20-79% of people with closed head trauma, depending on severity. Impairment in efficiency and speed of information processing, attention and vigilance are seen in most cases. Alertness is impaired in severe traumatic brain injury. The patient may be withdrawn, dull, and apathetic. Deficit of alertness often accompany deficits of motivation. Divided attention deficits are present.

A Prospective cohort study suggests sexual difficulties were present in a substantial portion of community-dwelling people with TBI at 1 year after injury. Educational interventions to increase awareness among people with TBI and rehabilitation professionals are warranted, as well as interventions to improve sexual functioning. Women reported greater dysfunction than men for sexual cognition/fantasy and arousal. Sixty-eight percent of participants indicated that they would spontaneously raise issues of sexual difficulties with health care professionals, while the remainder would either bring it up only if directly asked or would not discuss it at all.

Problems of patients after traumatic brain injury: A cross sectional study

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ABSTRACT
A Descriptive study was conducted to identify problems of the patients after traumatic brain injury attending the neuro out-patient department, Ananthapuri hospitals and research institute, Trivandrum among selected 60 patients attending neuro out-patient department, by using convenient sampling technique. An interview was conducted to identify the problems of the patients after traumatic brain injury. The study findings suggest that the cognitive problems of patients have significant association (p < 0.01) with the GCS score at admission, the physical problems have shown difference on computation but, no significant statistical association was found with the GCS score of patients at admission. Problems after traumatic brain injury are more among severe traumatic brain injury patients than in mild and moderate traumatic brain injury. In conclusion, the study showed that traumatic brain injury is more among males and the patients are suffering from cognitive, physical and psychosocial problems after traumatic brain injury.

KEYWORDS: Traumatic brain injury; cognitive problems; Interview schedule.

Materials and methods
A descriptive study was conducted to identify problems among patients after traumatic brain injury. 60 patients attending neuro out-patient department of Ananthapuri hospitals and research institute, Trivandrum were selected using convenient sampling technique. An interview was conducted to identify the problems of the patients after traumatic brain injury. The tool consists of seven sections; Section I: Socio demographic data - It includes 11 questions regarding age, gender, religion, marital status, place of residence, educational status, type of family, present occupation, previous occupation, monthly income, support system, and comorbid illness; Section II: Clinical Data- This section contains 14 questions which includes type of admission, area of brain affected, history of associated injuries other than traumatic brain injury, condition of patient at admission, consciousness after the period of injury, GCS score at admission, ventilator support during hospitalization, undergone intracranial surgical intervention during hospitalization, history of seizure during hospitalization, duration of hospitalization, Glasgow Coma Score at the time of discharge; Section III : Data related to injury- It consists of 9 questions which includes the duration between the time of injury and hospitalization, cause of injury, predisposing factor for the cause of road traffic accident, type of vehicle used by the person at the time of injury, status of action during accident, time of injury, day of injury, events that followed immediately after injury; Section IV : General Assessment- This section contains 7 questions about the appearance, grooming, consciousness, orientation, posture and gait of the patient at the time of data collection; Section V : Cognitive problems- This section contains 4 questions related to the cognitive problems of the patients after traumatic brain injury; Section VI: Physical problems- 21 questions about the physical problems of patients after traumatic brain injury are included.
Results

a. Sample characteristics

Age wise distribution of subjects revealed that 41.7% patients belong to <30 years, 23.3% are between 30–39 years, 21.7% between 40–49 years, 13.3% ≥50 years. Majority of subjects (63.3%) were males and 36.7% were females. Among the subjects, 38.3% Hindus, 36.7% Muslims, and 25.0% Christians. 60.0% were married, 26.7% unmarried, 6.7% widow/widower, 6.7% were divorced/separated. Majority (71.2%) were from urban and 28.3% from rural population, 40.0% were collegiate, 21.7% were professional, 17% were illiterate, 15.0% were having secondary education, 11.7% were having technical education, 10.0% were having primary education. Majority of 55.0% were from nuclear family, 40.0% from joint family and 5.0% from extended nuclear family. Among the subjects 30.0% had cardiovascular problems, 28.3% with diabetes, 23.3% had bronchial asthma and 18.4% were having renal problems.

b. Cognitive problems among patients

Table 1: Frequency and percentage distribution of subjects according to cognitive problems (n = 60)

<table>
<thead>
<tr>
<th>Cognitive problems</th>
<th>Almost</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory problems</td>
<td>f %</td>
<td>f %</td>
<td>f %</td>
</tr>
<tr>
<td>3</td>
<td>5.0 38</td>
<td>63.3 19</td>
<td>31.7</td>
</tr>
<tr>
<td>Able to complete the task with concentration</td>
<td>3 5.0</td>
<td>32 53.3</td>
<td>25 41.7</td>
</tr>
<tr>
<td>Attention deficit</td>
<td>3 5.0</td>
<td>36 60.0</td>
<td>21 35.0</td>
</tr>
<tr>
<td>Difficulty in making decisions</td>
<td>3 5.0</td>
<td>27 45.0</td>
<td>30 50.0</td>
</tr>
</tbody>
</table>

Table 1 reveals that 3 patients (5.0%) of them almost have all the cognitive problems, whereas 38 of them (63.3%) are found to have memory problems sometimes and 19 of them (31.7%) never had memory problems, 36 patients (60.0%) had sometimes attention deficit, and 27 of them (45.0%) sometimes had difficulty in making decisions.

c. Physical problems after traumatic brain injury

Figure 1: Distribution of subjects according to physical problems

d. Psychosocial problems of subjects

The subjects sometimes had the psychosocial problems of feel sad, feel hope about future, like to interact with friends, interested to participate in social gatherings, feel anxious about physical problems, feel calm and quiet and never had problems with the feeling of being punished.

Discussion

Traumatic brain injury continues to be an enormous public health problem, even with modern medicine in the 21st century. Patients who had traumatic brain injury face various cognitive, physical and psychosocial problems. Present study mainly focused on identification of problems of patients after mild, moderate and severe traumatic brain injury. It is classified as mild, moderate or severe depending on a patient’s level of consciousness and level of neurologic functioning.