台北市輕度頭部外傷之分類及醫療資源使用情形

The Classification and Medical Resources Utilization of Mild Head Injury in Taipei City

中文摘要

我們利用回溯性的研究，在兩年期間共收集到輕度頭部外傷，昏迷指數 Glasgow Coma Scale（GCS）分數在 13-15 之間，總共 4271 人，其中 GCS 15 分者有 3756 人（87.9%），GCS 14 分者有 322 人（7.5%），GCS 13 分者有 193 人（4.5%）。受傷的原因最主要是車禍及跌倒。最常見的年齡層在 15 到 24 歲之間以及大於 65 歲以上。

其中 970 人（22.7%） 電腦斷層結果發現有顱內出血，334 （7.8%） 需接受開顱手術以及 237 人（5.5%） 預後不佳（死亡，植物人狀態以及意識清楚但生活依賴）。

我們歸納出八項危險因子會增加輕度頭部外傷發生顱內出血的機會，包括：男性、入院時 GCS 不到 15 分、意識喪失、傷後失憶、痙攣、神經障礙、顱骨骨折、年紀大於 65 歲。不過，這些可能需要更多前瞻性的研究來證實。

輕度頭部外傷定義是 GCS 介於 13-15。但是很多研究顯示，病人昏迷指數在 13-15 之間其實臨床的差異蠻大的。當病人的昏迷指數是 13 或 14 時，通常比較容易有嚴重的傷害。他們有比較高的比例電腦斷層的結果異常、顱內出血、接受開顱手術以及較不好的預後。目前的輕度頭部外傷的定義可能讓人產生錯誤的印象，甚至造成疏失，因爲其實傷害的結果可能不是“輕度”。

我們建議，應該將 GCS 13-15 的傷患再細分爲“輕度頭部外傷”及“高危險群輕度頭部外傷“。”輕度頭部外傷“定義爲 GCS 15 且電腦斷層正常；”高危險群輕度頭部外傷“定義爲 GCS 13、 14 或 15 但電腦斷層異常者。利用這樣比較精確的分類，真正輕度頭部外傷的病人從急診就可以出院，高危險群的輕度頭部外傷病患就可以住院觀察，或警告其可能產生的嚴重併發症。

英文摘要

We performed a retrospective study of 4271 consecutive patients with mild head injury (Glasgow Coma Scale score 13-15) who were seen during a period of 2 years. Of these, 3756 (87.9%) patients scored 15 points, 322 (7.5%) scored 14 points and 193 (4.5%) 13 points. Injuries are primarily the result of motor vehicle crashes and falls. The highest incidence of mild head injury is seen 65 years of age and older and between the ages of 15 and 24 years.

970 (22.7%) patients with acute traumatic lesions disclosed by computed tomography (CT) of the head, 334 (7.8%) required neurosurgical intervention and 237(5.5%) with unfavourable outcome (death, permanent vegetative state or severe disability).

Eight risk factors were statistically correlated with acute traumatic lesions: Gender (male), lower GCS (13-14), initial loss of consciousness, post-traumatic amnesia, seizures, focal signs, presence of skull fractures, and older age (≧65). However, this should be validated by more prospective studies.
There is a heterogeneity in pathophysiology among patients with GCS scores ranging from 13-15. Patients with GCS score 13 or 14 tended to have more serious injury. There is a statistically significant trend across GCS scores in terms of percentage of patients with positive acute radiographic findings, percentage of patients with neurosurgical interventions, and percentage of patients with poorer outcome. The current definition of mild head injury is misleading because the sequelae of the injury may not be mild. The head injury patients with GCS 13-15 should be further subdivided into "mild head injury" and "high-risk mild head injury." Mild head injury is defined as GCS 15 without any acute positive radiographic findings, whereas high-risk mild head injury is defined as GCS 13 or 14, or GCS 15 with acute positive radiographic findings. Using this more precise classification, the truly mild head injury patients can be safely discharged from the emergency department, and the high-risk mild head injury patients can either be admitted or be warned about the expected sequelae.