嚴重頭部外傷處理準則對台灣地區病患存活情形之評估

Assessment of Guidelines of Management in Severe Head Injury in Taiwan

中文摘要

頭部外傷是事故傷害致死及失能的最主要原因。多項研究顯示神經重症照護可有效減少頭部外傷患者腦部的二次傷害。於 1995 年美國（Brain Trauma Foundation and American Association Neurological Surgeons）即發表「嚴重頭部外傷處理準則」（Guidelines for the Management of Severe Head Injury）目的即希望藉此提供治療上的建議，以減少嚴重頭部外傷患者之死亡率及失能程度。目前台灣大多數神經外科醫師已接受此一新觀念，然而，真正落實者仍爲少數，除醫療政策無法配合外，本土之相關研究較少，亦是一項重要因素。本研究主要探討「嚴重頭部外傷處理準則」之建議內容，是否適用於台灣地區嚴重頭部外傷患者，並提供本研究結果作爲日後其他相關研究之參考。本研究登錄台灣北、中、南共六家具有神經外科訓練中心醫院之嚴重頭部外傷病患資料。主要針對顱內壓的控制、腦灌流壓之維持、過度換氣治療、血壓升高劑及鎮靜劑之使用等治療方式進行分析，並使用受傷後一個月之 GOS 做爲預後評估。研究中共收錄 94 名嚴重頭部外傷患者（GCS≦8 分），男女比爲 2.9：1，平均年齡爲 43.9 歲。顱內壓超過 25mmHg 的患者預後結果較差的危險性是顱內壓控制在 25mmHg 以下的患者的 4.25 倍（$p<0.05$），預防性使用鎮靜劑患者有較好的預後（Odds ratios＝2.8, CI＝1.0-7.5）。而腦灌流壓的維持、過度換氣治療及血壓升高劑的使用與否，於預後情形並未達統計上顯著差異。本研究結論爲依據「嚴重頭部外傷處理準則」置入顱內壓監測器，並且控制顱內壓，對患者是有益的；而其他之治療建議，將更進一步的研究，以確定台灣嚴重頭部外傷患者之適用性。

英文摘要

Head injury is the main cause in inducing death or disability of those patients with injury. Researches have shown, providing well neuro-intensive care to those patients can effectively reduce their further injury or secondary attack. In the year of 1995, "Brain Trauma Foundation and American Association Neurological Surgeons" has proposed "Guidelines for the Management of Severe Head Injury", the purpose of this guideline was to give advise to medical staffs in order to reduce the mortality and morbidity of those patient with head injury. The aim of this research was to determine if the contents of "Guidelines for the Management of Severe Head Injury" suitable for practicing on those patients with severe head injury in Taiwan. In addition, the result of this research may act as the reference for further related studies. In this study, data of patients with severe head injury from

6 different medical centers in Taiwan have been collected. We have analyzed the management methods of controlling intracranial pressure (ICP), cerebral perfusion pressure (CPP), hyperventilation, and the usage of vasopressors and sedatives. We have used the data of G.O.S. after one month of injury analysis. Total of 94 cases with severe head injury (GCS $\leqq 8$) have been collected, the sex ratio is 2.9, and average age is 43.9. The outcome for those patients with ICP over 25 mmHg resulted in poor outcome is about 4.25 times ($p < 0.05$) than those patients with ICP lower than 25 mmHg. In those patients with the usage of preventive sedative resulted in a favorable outcome (Odds ratios = 2.8, CI = 1.0–7.5). There were no significant statistical differences to those patients with or without the maintenance of CPP, controlling of hyperventilation and usage of intracranial pressure. In conclusion, according to "Guidelines for the Management of Severe Head Injury", benefits can be seen in those patients with implanted ICP monitor with close controlling of ICP, however, further studies are needed for other management methods in order to confirm if they are suitable for applying to those patient with severe head injury in Taiwan.