

• 計畫中文名稱	嚴重頭部外傷處理準則對病患存活情形及健康相關生活品質		
• 計畫英文名稱	Assessment of Guidelines of Management in Severe Head Injury		
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• 中文摘要

頭部外傷照護之主要目的是降低其死亡率及殘障程度，並盡可能的提高傷者之生活品質。自 1970 年以來，許多報告指出對於嚴重之頭部外傷病患採用加護重症照顧可顯著降低死亡率及殘障程度，美國更於 1995 年正式發表嚴重頭部外傷處理準則（Guidelines of management in severe head injury），其中主張嚴重病患應裝置顱內壓（Intracranial pressure, ICP）監測，除了強調顱內壓的控制外，更應著重於腦灌注壓（Cerebral perfusion pressure, CPP）的維持，藉此以避免腦部缺血所造的細胞壞死，這種新觀念與傳統的治療方法截然不同，甚至背道而馳。此突破性知識已在歐美國家廣泛實施，而且經過五年之評估，認為此一新觀念確實有其臨床效果。然而，目前台灣對此新觀念尚未完全接受，有些神經外科醫師甚至採存疑的態度，因此在提倡依照準則的新觀念時，常由於本土性的相關研究佐證不夠而有爭議，甚至受到阻礙。有鑑於此，建立依全台灣人口為基礎之研究，提供有力之證據，實為刻不容緩之工作，藉此以加速推動醫療機構接受此新觀念，進而造福病人。本研究之目的在於藉由持續性的登錄全國頭部外傷資料，瞭解目前台灣之醫療機構，使用 ICP 監測之新照護準則的情況，並利用 Glasgow Outcome Scale(GOS)及 CPP 療程存活追蹤 Health-related Quality of Life(HRQL)調查以瞭解是否應用 ICP 監測及 CPP 照護之嚴重頭部外傷病患其預後及健康相關生活品質之差異情形。另外並將針對神經外科醫師，舉辦數場演講及研討會以宣導新的照護觀念，並於一年後重新評估其效益。研究之進行方式可略分為以下之六步驟：一、全國頭部外傷資料登錄，並由登錄資料中找出嚴重之頭部外傷患者。二、重新審閱嚴重頭部外傷病患之病歷，並將之區分為如下述之三個族群以比較預後之差異。1. 有顱內壓監測及腦灌注壓照護管理之病患；2.有顱內壓監測，但無腦灌注壓照護管理之病患；3.無顱內壓監測，亦無腦灌注壓照護之頭部外傷病患。三、以 HRQL 問卷持續追蹤此三目標族群之存活結果及健康相關生活品質，以進行評估及比較此三組間差異。四、訪視神經外科醫師其 CPP 照護之經驗，故可藉此而評估國內神經外科醫師對此新照護準則之瞭解程度及實際實施情形。五、於計畫中期舉辦各講座、講習以有效協助神經外科醫師對於「嚴重頭部外傷處理準則」之認知與瞭解。六、藉由瞭解國內醫療機構使用顱內壓監測及腦灌注壓照護比率之變化，以評估「嚴重頭部外傷處理準則」宣導之成效。

• 英文摘要

The objective of head injury management is primarily to reduce the mortality rate and disability, and to promote the quality of life (QOL) from the unfortunate. A large body of published data reports that significant reductions in mortality and morbidity can be achieved in patients with severe head injury by using intensive management protocols. Of the recent ? H ? ±Guideline of Management in Sever Head Injury ? H ? H developed by the American Association of Neurological Surgeon and the Brain Trauma Foundation since 1995, intensive monitoring of intracranial pressure (ICP) is essential in determining the adequate cerebral perfusion pressure (CPP) and thus, salvage the swelling brain from further ischemia. This break through knowledge has been greatly implicated as the guideline in U.S. and Euro-countries. New protocols provide converse view from the earlier management of decompression. New idea suggested that poor cerebral perfusion could be harmful, and a somewhat elevated blood pressure could protect against brain ischemia in a patient with high ICP. After the assessment for 5 years, magnificent results have been observed in clinical trials. However, Taiwan is still

absent in providing evidence-based research and promotion of the significance of ICP monitoring while lack of study in Taiwan has also resulted in great controversy over the issue of adequate CPP management. Thus, a population base study in Taiwan is not only mandatory in resolving the debate of the issue and further, in pushing the application of new protocols in major health institution. From the continuation of prior data registry, the purposes of our research are to understand the current status in the implication of ? H ? ±Guideline of Management in Severe Head Injury ? H ? H involving the use of ICP monitoring among major health institutions in Taiwan, to investigate the outcome difference (Glasgow Outcome Scale (GOS) & Health-related Quality Of Life (HRQL)) among patients with severe head injury (Glasgow Comma Scale (GCS) ? H ? H 8) after the application of ICP monitoring and CPP based management in Taiwan, and to re-evaluate the effectiveness after one year of promotion by providing lectures and symposium for neurosurgeons regarding the use of ? H ? ±Guideline of Management in Severe Head Injury ? H ? H. Method of the study will be addressed in six major approaches: 1.Head injury data registration to find out severe head injury population. 2.Review the medical chart of patients with severe head injury. According to the review, patients will further be divided into three groups as followed and will be assessed and compared in the difference of their outcomes: a.Patient who were managed under both ICP monitoring and adequate CPP management. b.Patients who were managed under only the ICP monitoring without further application of CPP management. c.Patients who were never managed under the above procedures. 3.Follow up the target population with their survival outcomes and HRQL. Assessment and comparison will also be carried out. 4.Interview with neurosurgeon about their experience in CPP management and thus, current status of surgeon ? H ? Hs acknowledgement and actual performance (from chart review) can be evaluated. 5.In the middle of the study period, symposiums and lectures will be held to educate the neurosurgeons regarding the knowledge of ? H ? ±Guideline of Management in Severe Head Injury. ? H ? H 6.After the promotion period, assessment of the effectiveness of promotion will be performed base on the proportion change in the institutions that practice the ICP monitoring and CPP management.