Rehabilitation Plan for Patient with Brain Hematoma Based on Need Assessment

Thesis

Submitted for Partial Fulfillment of the Requirements of Master Degree in Nursing-Sciences

(**Medical – Surgical Nursing)**

By

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ABSTRACT

Brain hematoma nowadays is considered one of the high prevalence diseases among the population. In addition, it affects dramatically the quality of life for those patients. **Aim of the study:** was to assess the needs for patient with brain hematoma as a baseline to suggest a rehabilitation plan. **Research design:** A descriptive exploratory design was followed to achieve the aim of the study. **Method:** This study was conducted at the neurosurgery departments and neurosurgery outpatient clinic at El-Demerdash Hospital, Ain Shams University. The subject of the study include all available adult patient from both sexes (50 patients). A designed interviewing questionnaires the PULSES Profile sheet, Barthel Index and Patient evaluation conference system for functional disability and handicap. **Result:** The study revealed that (74%) of patients were dependent to vocational and recreational. (70%) of patients were dependency in activity of daily living, and (60%) of patient had unsatisfactory social needs issues and (67%) had unsatisfactory psychological condition. In addition, the study revealed that there were statistically significant differences between males and females patients regarding psychological needs at $p<0.05$. **Recommendation:** That a simple booklet for discharge instructions should be available in neurosurgery units and suggest able rehabilitation program for patients with brain hematoma to help them return to the highest level function based on their needs is mandatory.

Key words: brain hematoma, needs, rehabilitation

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List of Abbreviation

ADLS: Activity of Daily Living Scale

ANS: Autonomic Nervous System

APaO2: Partial pressure of oxygen in arterial blood

BP: Blood Pressure

CNS: Central Nervous System

CSDH: Chronic Subdural Hematoma

CSF: Cerebrospinal Fluid

CT: Computed Tomography

CVA: Cerebrovascular Accident

DVT: Deep Vein Thrombosis

EDH: Epidural Hematomas

EEG: Electroencephalography

GCS: Glasgow Coma Scale

GIT: Gastro-Intestinal Tract

HIV: Human Immunodeficiency Virus

HR: Heart Rate

HTN: Hypertension

ICH: Intracerebral Hematoma

ICP: Intracranial Pressure

LOC: Loss of Consciousness

MRI: Magnetic Resonance Image

O_2: Oxygen

PECS: Patient Evaluation Conference System

PNS: Peripheral Nervous System

SAH: Subarachnoid Hematoma

SDH: Subdural Hematoma

SNS: Sympathetic Nervous System

SPO_2: Saturation of Oxygen in Arterial Blood

TBI: Traumatic Brain Injury

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Introduction

Brain hematoma or intracranial hematoma is accumulation of blood within the brain or between the brain and the skull. Symptoms may include a persistent headache, drowsiness, confusion, memory changes, paralysis on the opposite side of the body, speech or language impairment and other symptoms depending on which area of the brain is damaged **(Maiese, 2008).**

An intracranial hematoma occurs when a blood vessel ruptures within the brain or between the skull and the brain. The collection of blood (hematoma) compresses the brain tissue. Treating an intracranial hematoma often requires surgery to remove the blood. However, a smaller intracranial hematoma may not require surgery **(Linton & Maebius, 2003).**

Computed tomography (CT) or magnetic resonance imaging (MIR) used to detect an intracranial hematoma. Intracranial hematomas include extradural, subdural, intracerebral and subarachnoid hematoma (Maiese, 2008).

The incidence of traumatic brain injury (TBI) is increasing globally, largely due to an increase in motor vehicle use in low and middle income countries. In developing countries, automobile use has increased faster than safety infrastructure could introduce. In contrast, vehicle safety laws

have decreased rates of TBI in high-income countries, in the United States about two million people suffer a TBI and about 500.000 are hospitalized. The yearly incidence of TBI is estimated at 180-250 per 100.000 people in the US, 281 per 100.000 in France, 361 per 100.000 in South Africa **(Maas, Stocchetti & Bullock, 2008).**

The incidence of epidural hematoma is 1% of head trauma admissions, while is 50% the incidence of acute subdural hematoma. Traumatic acute subdural hematoma remains one of the most lethal of all head injuries **(Alejandro, Rabinstein, Eelco &Wijdicks, 2010).**

Subacute subdural hemorrhages have been reported to occur in 5-25 % of patients with severe head injuries while incidence of chronic subdural hemorrhage has been reported to be 1-5 cases per 100.000 people per year **(Donald, Johnson, Cooper, Nelson, Werner & Shimony, 2011).**

Intracerebral hematoma affects approximately 12-15 per 100.000 individuals, including 350 hypertensive hemorrhages per 100.000 elderly individuals. International, Asian countries have a higher incidence of intracerebral hematoma than other regions of the world. Annually, more than 20.000 individuals in the United States die from intracerebral hemorrhage **(Nighoghassian, 2009).**