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### MANAGEMENT OF TRAUMATIC BRAIN CONTUSIONS

Essay

Submitted for Partial Fulfillment of Master Degree in General Surgery

**By REDA SHEHTA ABDEL-BAKY** *M.B., B.Ch.* 

Supervisors

#### PROF. DR. MOHAMMAD MOSTAFA ALI

Professor of General Surgery Benha Faculty of Medicine Zagazig University

#### PROF. DR. AHMED SHAWKY EZZAT

B 10666

Professor of General Surgery Benha Faculty of Medicine Zagazig University

#### PROF. DR FATHY HUSSEIN EL-NOSS

Assistant Professor of Neurosurgery Head of Neurosurgery Department Benha Faculty of Medicine Zagazig University

#### PROF. DR. HAMDY AHMAD ERAKI

Assistant Professor of General
Surgery
Benha Faculty of Medicine
Zagazig University

Benha Faculty of Medicine Zagazig University



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#### **CONTENTS**

	Page
Introduction	1-2
Aim of The Work	3
Chapter one: Anatomy of the human brain	
The Cerebral Hemispheres	4
The Diencephalon	4
The Midbrain	4
• The Pons	5
The Medulla oblongata	5
The cerebellum	5
Cerebral convolutions, fissures and Sulci	6
The main lobes of the cerebral Hemispheres	8-9
Functional Areas of the cerebral cortex	9-12
Blood supply of the Brain	12-13
Chapter two: Pathophysiology Of Traumatic Brain Injury	
(TBI)	
Cellular metabolism and Ion homeostasis	14-17
Cerebral blood flow Regulation following (TBI)	17-18
Brain edema	18-12
Chapter Three : Pathology of brain contusions	
Definition	21 _
Types of Brain Contusions	21-23
Progression of Brain contusions	23-25
Chapter Four : Neurological evaluation of head injuried	
patients	
General Examination	- 26
Levels of Consciousness	27
Glasgow coma scale	27-28
Eye opening	29
Best verbal response	29
Best motor response	29-30
Expanded Examination	30-31

Cranial Nerve examination	31-32
Post traumatic amnesia	32
Disturbance of speech	33
Chapter Five: Radiological evaluation of head injuried	
patients	
Computed tomography (CT) scan	34-54
Magnetic resonance imaging (MRI)	54-56
Angiography	56
Plain x-ray	56
Chapter Six: Management of head injuried patients	
Prehospital care of head injuried patients	57
Admission to the hospital	57
■ Low-Risk Group	57
■ Moderate – Risk group	58
High risk group	59
Surgical intervention	60
Intracranial pressure Management	60-63
■ Mannitol	62
Hyperventilation	62 -
High – Dose barbiturate	63
• Intensive Care Unit management of severe Head injury	63-67
Airway and ventillation	63
Serial neurologic evaluation	63
Blood pressure management	64
Fluid management	64
Sedation	64
Nutrition	65
Temperature Management	65
Anticonvulsant	65
Nimodipine for subarachnoid hemorrhage	66
Steroids	66
Gastric stress ulcer prophylaxis	66

Deep vein thrombosis prophylaxis	66
Antibiotics	67
Chapter Seven: Management of head injuried patients with	
brain contusions	
Symptoms and Signs	68
Radiological evaluation	69
Management of Brain contusions	70-75
• Conservative	70-72
	72-75
Chapter Eight: Outcome and prognosis	76-81
• References .	82-90

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#### INTRODUCTION

Head injury is a modern sourge of industrialized society. It is a major cause of death, especially in young adults and a major cause of disability. Brain injuries occur at all ages, but the peak is in young adults between the age of 15 and 24 years (Mayer and Rowland; 2000).

Brain contusions are the classic and primary hallmark of brain trauma. However, they may be totally absent in patients who have sustained severe and even lethal closed Head injury (Adams; 1992).

Cerebral contusion is a pathologic term that implies loss of integrity of the cerebral tissues, usually without interruption of the physical continuity of the cerebral cortex or pia. Contusions are usually found where the dura is not perforated or lacerated. Minor hemorrhages that accompany contusions result from torn or ruptured arterioles, capillaries or veins (Zee, et al; 1996).

The symptoms and signs of brain contusion in head injured patients will vary according to the site and size of the area of contusion and type of associated lesions, small contusions pose no threat to the patients' life, and may have no symptoms, while larger contusions involving both the frontal and the temporal lobes can cause elevations of intracranial pressure, shift of the midline and concomitant coma (Samudrala and Cooper; 1996).

Cerebral contusions are most common in the frontal and temporal regions but can occur anywhere. They may also occur in the side of the

brain opposite to the direct blow owing to the so called contrecoup mechanism (Tsay, et al; 1978).

Medical therapy may be attempted initially, however if the intra cranial pressure (ICP) becomes difficult to control or the neurological status deteriorates, prompt operative evacuation is recommended, large contusions should be resected shortly after injury to minimize the chance of subsequent neurological deterioration (Samudrala and Cooper; 1996).