

**Results:** Accelerated in arousal was seen in 8/17 (47.0%) cases over 4- 40 days. In 7/17 (41.2%) cases, GOS improved to 4/5 in 90 days. Improvement in hemi paresis by BMC grade of at least 1 was seen in 5/9(55.6%) of cases in a period of 40 days. Aphasia improved in 4/5 (80%) cases over 7- 30 days. Moderate improvement in cognitive impairment was seen in 2/3 (66.7%) cases in 14-20 days.

**Conclusion:** Bromocriptine improves neurological sequelae of TBI as well as the overall outcome in the patients. It can be the missing link in the puzzle to resolve the neuro-rehabilitational aspects of certain selected neurosurgical patients.

**Keywords:** Bromocriptine, Neuro-rehabilitation, Outcome

#### OP-NT.06-09

### Progression of Cerebral Contusion/Hematoma on 2nd CT Scan and Their Outcome, in Patients of Traumatic Head Injury

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**Background:** Traumatic expansion of cerebral contusion/hematoma often occurs in early hours of traumatic impact which can lead to irreversible neurological functions. Aim of our study is to find risk factors associated with expansion of cerebral contusion/hematoma on repeat 2nd CT Scan and their outcome.

**Method:** This study was conducted from Jan 2014 to July 2014 in Neurosurgery ward Liaquat University hospital Hyderabad. 40 patients were included in this study with traumatic cerebral contusion/hematoma on initial CT SCAN. An initial neurological examination including GCS was performed on admission. Repeat CT scan was done within 24 hours of traumatic brain injury. Expansion of contusion hematoma was measured with ABC/2 method. Risk factors causing expansion of hematoma were assessed and their outcome was recorded.

**Results:** Age range was between 16 to 65 years. Out of 40 patients 35 were male and 5 were female. Hematoma expansion occurred in 16 patients ( 40%) while in remaining 24 patients (60%) it slowly resolved. Majority of expanding hematomas 12 (75%) out of 16 were associated with RTA and remaining were associated with H/O fall and assault. 11 patients (68.75%) out of 16 had GCS of 8 or below while remaining 5 patients (31.25%) had GCS of 9-12. None of patient with GCS 14-15 had expanding hematoma. 2 patients (12.15%) with expanding hematoma and GCS below 8 died.

**Conclusion:** Cerebral hematomas expand in early periods of traumatic insults. Chances of expansion increase with severity of trauma and poor GCS.

**Keywords:** Contusion, GCS, Expansion, Subdural hematoma

#### OP-NT.07-01

### Skull and Brain Gunshot Wound during the Armed Conflict in Eastern Ukraine. Optimization of Medical Care

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**Background:** A prospective study of the results of treatment of 132 patients with gunshot traumatic brain injury (GTBI), who were

admitted during the period from May 2014 to December 2015, has been conducted.

**Methods:** Surgical tactics issues, complications frequency and nature, reasons for reoperation, mortality among the injured, ways to improve the medical care delivery have been studied.

**Results:** 93 (70.5%) patients had penetrating traumatic brain injuries (TBI) with the dura injury, and 39 (29.5 %) – nonpenetrating TBI. Injuries with mine and explosive devices debris were diagnosed in 115 (87.1%) patients, and injuries with small arms bullets – only in 17 (12.9%). On the basis of own experience and analysis of the literature data about GTBI treatment, 12 main operation stages have been distinguished. During penetrating injuries surgical debridement all devitalized tissues - detritus, blood clots, aggressive lesions, foreign matters – shall be radically removed; primary reconstruction of the skin, dura, skull base and skull cap shall be used widely. In the conducted study, Among 132 patients 16 (12.1%) persons died. All 39 patients with nonpenetrating TBI survived. Among patients with penetrating TBI mortality rate made 17.2%.

**Conclusion:** The main task of the surgery for penetrating traumatic brain injuries is its execution by the neurosurgeon to the full extent during a single surgery. A perspective direction to improve the results of treatment of patients with head wounds is the realization of conception of the early specialized neurosurgical service with the usage of the early reconstructive neurosurgery tactics.

**Keywords:** Skull and brain gunshot wound, Armed conflict, Optimization of medical care, Penetrating injuries, Gunshot traumatic brain injury

#### OP-NT.07-02

### Analysis of Epidemiologic Data of Head and Spine Injury in Ten Years of Telemedicine Experience in the North-West area of Emilia Romagna Region of Italy

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**Background:** In the last years a decrease of traffic accident and an increase of fall and suicide has been observed by the Italian National Institute of Statistics. The aim of this study is to report the modified epidemiology of patients admitted for head and spine injury in the last ten years of telemedicine experience of the North-West area of Emilia Romagna region has been analyzed. This geographical area is extended for 100 Km<sup>2</sup>, with 1.400.000 inhabitants. The territorial organization of health care provides a Level I Trauma Center (HUB), a Level III Trauma Center with Neurosurgeon 12h on duty/12h on call (NSPOKE) and 9 peripheral hospitals with CT scan 24h (SPOKE).

**Method:** In this retrospective observational study two 2-years periods one from June 2007 to July 2009 versus one from July 2014 to June 2016 has been compared.