

Original Article

Rohingya Crisis: An Added Challenge in Neurosurgical Arena of Chattogram Medical College Hospital

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Abstract:

Rohingya are the group of people who has an specific ethnic, linguistic and religious group lived in the former Arakan state, renamed as Rakhain state of Myanmar. These people are homeless, stateless and disowned by their own government.

Chattogram Medical College Hospital is the only tertiary level government hospital nearest to the Rohingya camp where Rohingya patients are referred from local health care providers. On a cross sectional observational demographic study conducted in the Department of Neurosurgery, CMCH revealed that, total number of admitted patient in CMCH is 757 among which 137 (18.09%) patient was admitted in Department of Neurosurgery since the Rohingya citizens are forcibly displaced from their land. Traumatic brain injury (31) , spinal injury (22) and gun shot wound (3) are the most common presentation as a result of ethnic cleansing. But lack of primary health care support, proper health education leads to development of hydrocephalus (8), meningocele (8), meningomyelocele (1) in children and delayed presentation of ICSOL (15) and Spinal SOL (2) are also observed among the admitted patients. 67 (48.90%) patients were treated conservatively and 70 (51.09%) patients are treated operatively.

Despite the existing over crowded patients from the Chattogram Division, these Rohingya patients made an added challenge to the Department of Neurosurgery. Proper strategic plan should be carried out for the management of neurosurgical condition for decreasing mortality and morbidity and thus support humanity above all.

Keywords: # Rohingya Crisis # CMCH # Rohingya in CMCH.

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Introduction

Rohingya is the term used to discriminate a racial, linguistic and religious group who lived in the former Arakan state, renamed as Rakhain state of Myanmar. Chattogram Medical College Hospital is the only tertiary level government hospital nearest to the Rohingya camp where Rohingya patients are

referred from local health care providers. Lack of nutrition, health education, immunization, maternal and new born child health care along with existing mass attack by beating and arms like rifle, bullet, bomb blast by the Myanmar army leads to various neurosurgical conditions that need to be addressed by the Department of Neurosurgery, Chattogram Medical College Hospital as an urgent basis.

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Background:

Rohingya people are homeless, stateless and disowned by their own government with the argument that they are not Myanmar citizens rather came from Bangladesh¹. Forcibly Displaced Myanmar Nationals (FDMNs) were first seen in 1978 and again in 1991-1992². Almost 250,000 people migrated to Bangladesh during these two periods.³UN officials and HRW have described Myanmar's persecution of the Rohingya as ethnic cleansing which began in 2017 and since August 25, 2017 approximately 1.1 million Rohingyas have arrived in Ukhiya, Coxsbazar, Bangladesh^{3,4}. World Health Organization (WHO) has graded this crisis as a level 3 emergency based on the public health situation and added challenge to health care providers in Bangladesh⁵. These people escaping violence in Myanmar's Rakhain state have crossed the Myanmar-Bangladesh border since the end of August 2017 when HPM Sheikh Hasina unbolts the border on humanitarian ground. Approximately 1.1 million Rohingyawhich include 585000 in the Kutupalong Expansion site, 237 000 in other settlements and camps, and 79 000 in host communities, who have joined another 213000 Rohingya people already in Bangladesh following earlier waves of displacement. The speed and scale of the influx has resulted in a critical humanitarian emergency, with people relying almost entirely on humanitarian assistance for food, water, shelter and basic needs.

Methods:

- Type of Study: Hospital based observational cross sectional study
- Place of Study: Department of Neurosurgery, Chattogram Medical College Hospital
- Study Period: 1 year 6 month
- Study Population: All Rohingya patients admitted in Department of Neurosurgery, CMCH
- Sampling: Purposive sampling

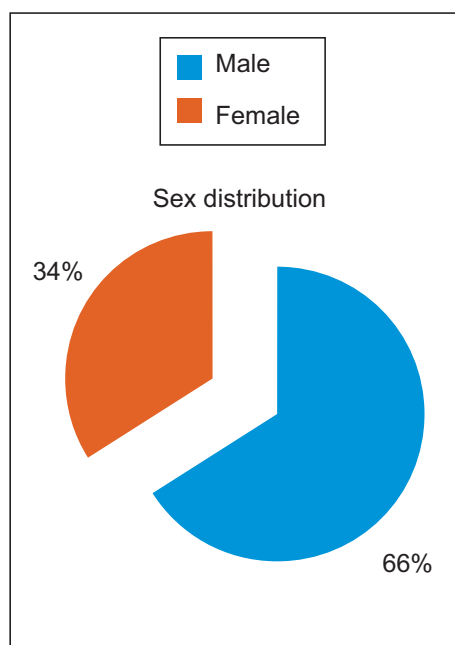
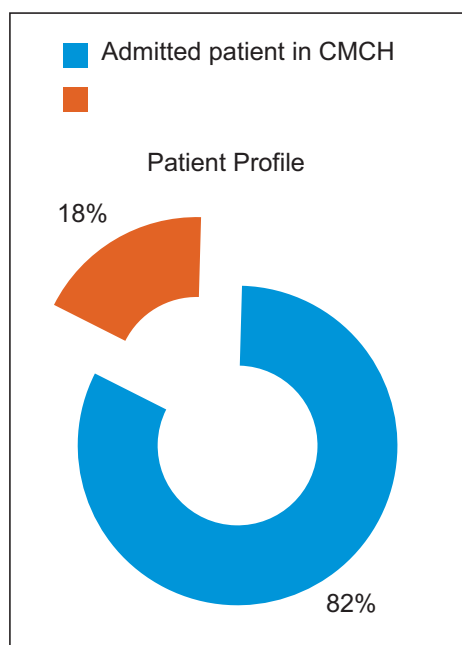
Results:**Demographic Sample Description**

Between 12th August 2017 and 20th March 2019, 757 Rohingya patient were admitted in Chattogram Medical College Hospital. Among them 137 patient were admitted in the Department of Neurosurgery.

Sex: The sample consisted of 91 (66%) Male and 46 (33%) Female.

Age: Their age ranged from 1 day to 91 years with a median of 17. More than half the sample (59%) was below the age of 18 years. One third (36%) was Adult (19-59 years). The largest age group, or the mode (40% of the sample) was child (0-12 years) group.

Marital Status: Being majority belongs to the child group, 79 (58%) were un-married, 19 (26%) were married and 40 (29%) were single, among them 34 were widowed and 6 were divorced.

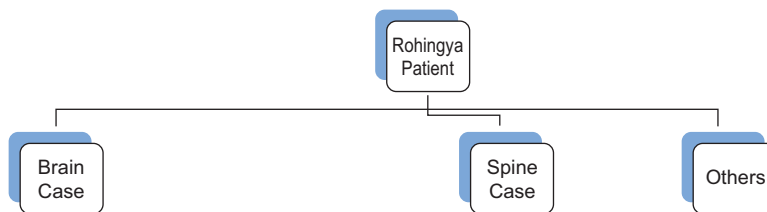
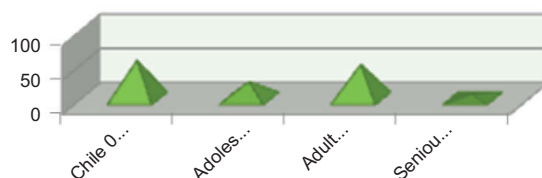


Educational Background: 98 (72%) were found uneducated, 17 (13%) has primary education, 12 (8%) has education up to 12 class (Higher secondary education), and 10 (7%) can only write their name.

Disease Profile: Among the total patient 82 (60%) were brain cases and 52 (38%) were spine cases and 3 (2%) were other (Gun shot wound) cases.

Nature of Treatment: 67 (49%) patients received conservative treatment and 70 (45%) received operative treatment. Total 9 (7%) patient died before getting definitive (Conservative or surgical) treatment. 8 (6%) patient were absconded after getting treatment from the hospital.

Age distribution



- Brain Case**
1. Mild Head Injury: 31
 2. ICSOL: 15
 3. Hydrocephalus: 8
 4. Compound Depressed #: 6
 5. Haemorrhagic Stroke: 6
 6. Extra Dural Haematoma: 3
 7. Encephalocele: 2 (Frontal 1, Occipital 1)
 8. Anencephaly 2
 9. Diffuse Axonal Injury: 1
 10. Cerebral Abscess : 1
 11. Subdural Empyema: 1
 12. Meningoencephalitis: 1
 13. Sub arachnoid Haemorrhage: 1
 14. Haemangioma in skull: 1
 15. Osteoma: 1
 16. Encephalitis: 1
 17. Osteomyelitis: 1
- Total: 82 (60%)

- Spine Case**
1. Spinal Injury: 22
 2. Lumbago e Sciatica (PLID): 9
 3. L/S Meningocele 8
 4. Lumbago: 4
 5. Pott's Disease: 3
 6. Spinal SOL: 2
 7. SCIWORA: 1
 8. Myelomeningocele: 1
 9. Meningocele e HCP: 1
 10. Limited lumber myeloschisis: 1
- Total: 52 (38%)

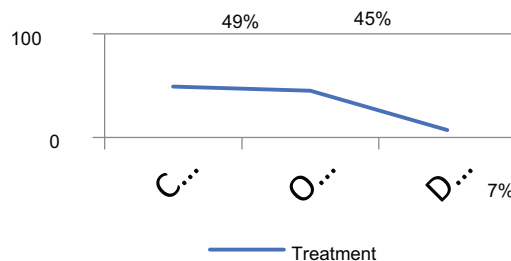
- Others**
1. Gun shot wound : 3
- Total : 3 (2%)

Rohingya Patient



■ Brain Cases
■ Spine Cases

Treatment



Type of Operation Done :

Brain:

1. Craniotomy and Excision of ICSOL
2. CSF Diversion Procedure (V-P Shunt)
3. Elevation of Depressed fragment
4. Craniotomy and Evacuation of EDH
5. External Ventricular Drainage
6. Excision and repair of encephalocele
7. Excision of Haemangioma and reconstruction of skull
8. Incision, curettage and drainage of osteomyelitis

Spine:

1. Decompression and Stabilization
2. Fenestration and Discectomy
3. Excision, repair of L/S meningocele
4. Laminectomy and Decompression of tubercular abscess
5. Laminectomy and excision of Spinal SOL
6. Wound debridement and primary closure

Discussion:

This is a hospital based observational cross sectional study conducted for a period of 1 year and 3 month in the Department of Neurosurgery, Chattogram Medical College Hospital revealed that, total number of admitted patient in CMCH is 757 among which 137 (18%) patient was admitted in Department of Neurosurgery since the Rohingyas are forcibly displaced from their land. Traumatic brain injury (31), spinal injury (22), physical assault (9) and gunshot wound (3) are the most common presentation as a result of direct violence upon them.



Fig: Frontal Encephalocele (Pre and Post Operative)



Fig: Occipital Encephalocele



Fig: Anencephaly

Rohingyas are deprived of primary health care support, proper health education, ante natal checkup which leads to development of several new born child with developmental anomalies like hydrocephalus (8), meningocele (8), anencephaly (2), meningomyelocele (1), LLM (1). In this study, we also noticed that there is delayed presentation of ICSOL (15) and Spinal SOL (2) among the admitted patients.

In this study, we also noticed that there is delayed presentation of ICSOL (15) and Spinal SOL (2) among the admitted patients.

As the Government of Bangladesh opens the border for Forcibly Displaced Myanmar Nationalists (FDMNs), allocated 3000 acres of land in Kutupalong, Ukhiya, Coxsbazar for their shelter, sharing food, meeting basic



Fig: Hydrocephalus

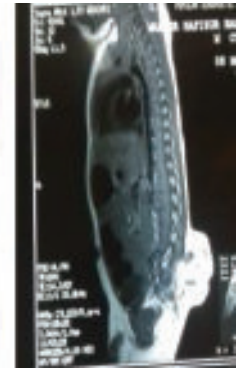
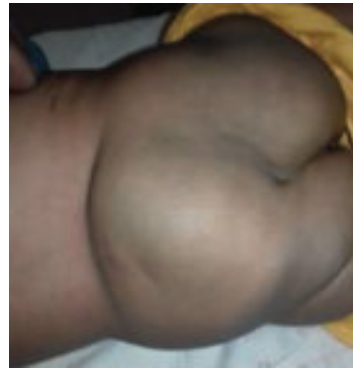


Fig: L/S Lipo-meningocele with MRI

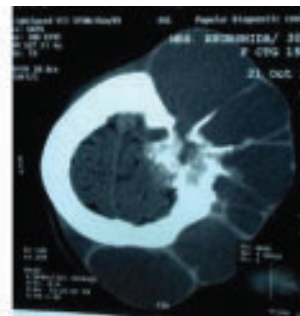


Fig : Metastatic adenocarcinoma of 30 Years Female Rohingya Patient

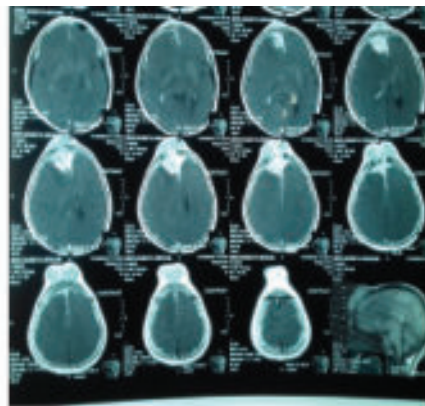


Fig : Meningothelial meningioma in a 50 Years Female Rohingya Patient

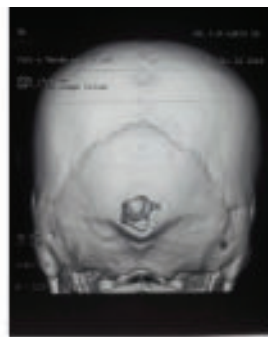
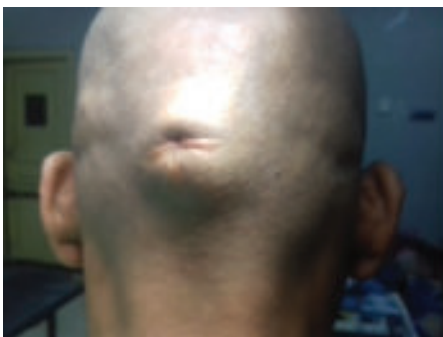


Fig : Chronic osteomyelitis of Skull due to old stock injury

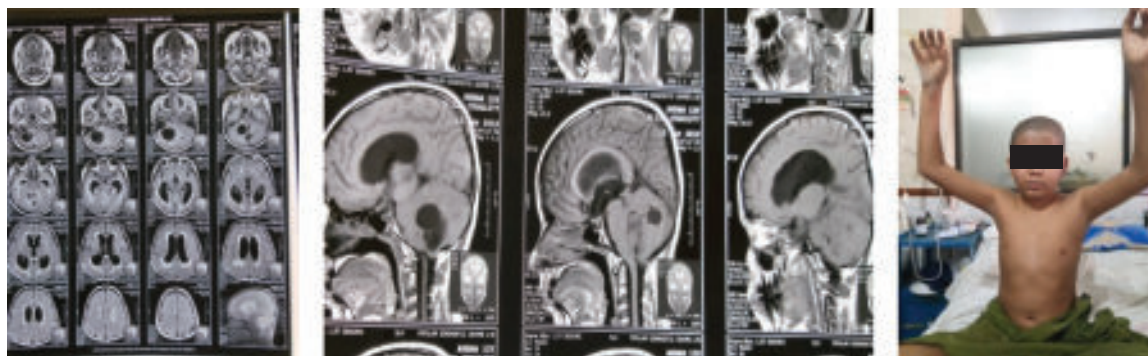


Fig : Cerebellar SOL in a 12 years Child with Post operative status on 5th Day



Fig : Spinal SOL (Schwannoma) Fig: Multiple Spinal SOL (Schwannoma)

needs with the help of local and international NGO's, alongside these people are getting treatment at free of cost from all the government hospitals. As a consequence of this government humanitarian effort, 67 (49%) patients were treated conservatively and 70 (45%) patients were treated operatively. During admission, 9 (7%) patient died before getting definitive (Conservative or surgical) treatment. 8 (6%) patient were found absconded after getting treatment from the hospital which is informed to hospital authority and local police camp.

Conclusions:

There are continued efforts taken to prevent largest humanitarian catastrophic epidemic outbreak of communicable diseases, water born diseases, blood born diseases, malnutrition, support for mental, sexual and reproductive health by the national and international NGO's but a large number of people are escaped from this group who needs neurosurgical management. Proper strategic plan should be carried out for the management of neurosurgical conditions to minimize

mortality and morbidity and thus support humanity above all.

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