

## DEPARTMENT OF SURGICAL ONCOLOGY

**Neuro Surgery Unit****Introduction:**

Neurological Surgery is a discipline of medicine and that specialty of surgery which provides the operative and non-operative management (i.e. prevention, diagnosis, evaluation, treatment, critical care, and rehabilitation) of disorders of the central, peripheral, and autonomic nervous systems, including their supporting structures and vascular supply; the evaluation and treatment of pathological processes that modify the function or activity of the nervous system, including the hypophysis: and the operative and non-operative

management of pain.

Neurological surgery encompasses the surgical, non-surgical and stereotactic radio-surgical treatment of adult and pediatric patients with disorders of the nervous system: disorders of the brain, meninges, skull base, and their blood supply, including the surgical and endovascular treatment of disorders of the intracranial and extra-cranial vasculature supplying the brain and spinal cord; disorders of the pituitary gland; disorders of the spinal cord, meninges, and vertebral column, including those that may require treatment by heat fixation, instrumentation, or endovascular techniques; and disorders of the urethral and spinal orifices throughout their distribution.

There are many risks to neurosurgery. Any operation dealing with the brain or spinal cord can cause paralysis, brain damage, and even severe blood loss.

Neurosurgery unit was formally started from 2002 since Dr. Thapa (Unit chief) joined the hospital. Since then the service is continued and ever growing. The initial no. of operations was very limited. Presently this is the only fully dedicated Neuro-oncosurgery unit in this country.

**Present Human Resources:**

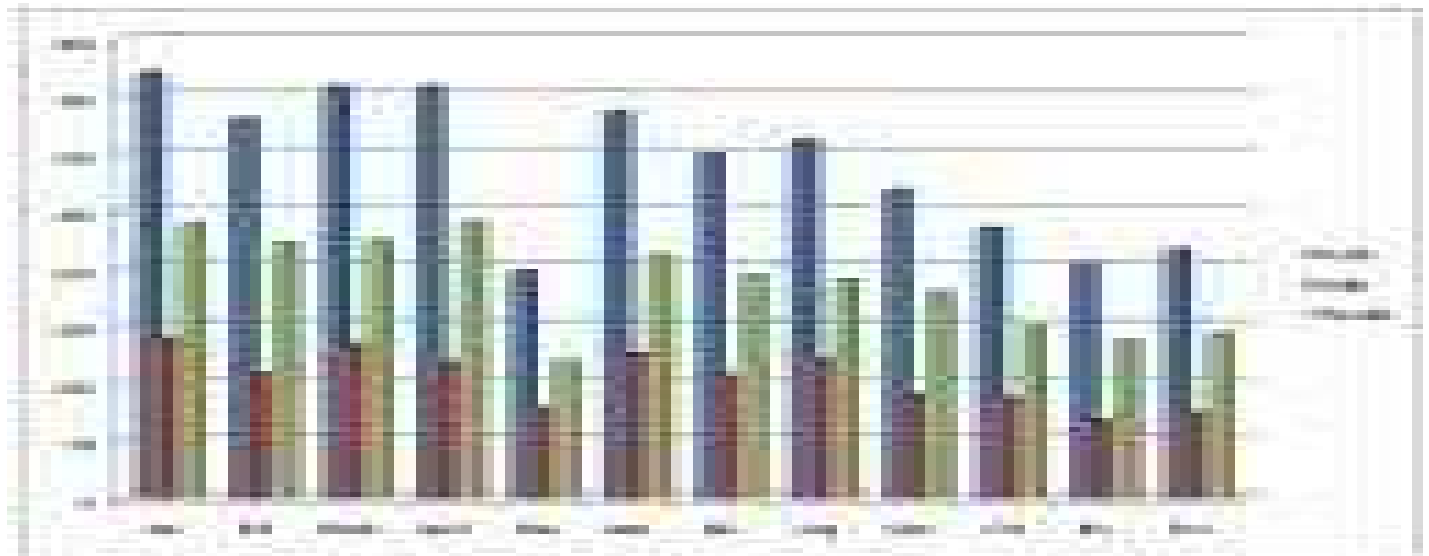
|                  |   |                  |   |
|------------------|---|------------------|---|
| Neurosurgeon:    | 1 | Chinese faculty: | 1 |
| Medical officer: | 1 | Helper (OPD) :   | 1 |

**Achievements:**

**1. Services provided in the year 2010:**

| Services                           | No.                                  |
|------------------------------------|--------------------------------------|
| OPD (Except the internal referral) | 3482 Male: 1238, female: 2244        |
| Total admission                    | 130                                  |
| Admissions in Neuroward            | 105 (Male: 56, female: 49)           |
| Admission elsewhere                | 25(Male: 14, female:11)              |
| Operations Major                   | 118                                  |
| Operation minor                    | 29                                   |
| Overall Hospital mortality         | 4                                    |
| Operative mortality                | 2(both periop)                       |
| Non-operative death                | 2(one each pre op & supportive care) |
| LAMA and DOR                       | 6                                    |

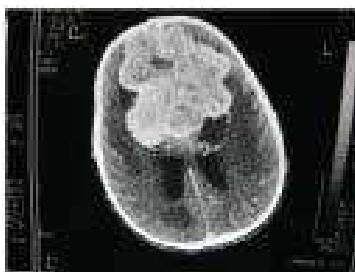
**2. Trends of Neurosurgical OPD patients (2010):**



**One or two illustrative cases in 2010 AD**

**Case 1.**

A 17 year old male from western Nepal, with 6 months history of seizure and loss of consciousness, bed ridden for that period.



Pre op CT scan



Intra op specimen



Post op CT scan



Post op patient

### Case 2.

A 40 year old teacher woman from Udaipur, had Astrocytoma operated 5 years ago at BPKMCH had recurrence and reoperated March 17, 2010



Pre op CT scan



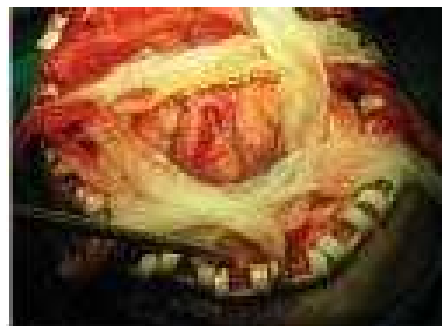
Surgical Planning



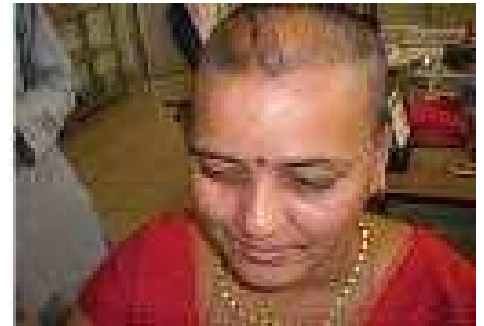
Pre-resection USG



Post resection USG



Intraop picture



Post op status

### 3. Papers and Presentations:

1. Teaching presentations / courses:
  - a. Cancer orientation to Health assistants and Paramedicals
  - b. Cancer Pathophysiology for senior nurses and MN Students, CNS tumor management for Nurses and Cancer prevention in Nepal
  - c. Cancer orientation to New staff Nurses

### 4. Teaching students:

The faculty is involved in regular teaching to the students from BPKIHS Dharan and School of Health sciences Bharatpur. Faculty has developed the cancer orientation course to these students.

### Students this year( 2010):

- BSc Nursing students from BPKIHS, Dharan; B Sc Nursing students from Scheer Memorial Banepa; MN students from IOM, Maharajgunj

### 5. Lessons learnt:

Neuro-oncosurgery is a real need of this nation and this can be done even with low cost low tech option as experienced from this hospital with reasonable success. There is a great need for creating awareness amongst medical fraternity and the general public about the possibility and availability of Neurological tumor surgery/management at low cost in BPKMCH. Neuroanesthetist, ICU set up, good neuro-nursing care and back up support- are very important and essential.