



NEUROSURGERY IN INDIA: PAST AND PRESENT

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ABSTRACT

Background: India has history of surgery 600 year B.C. As far as modern Allopathy is concerned first account of neurological procedure was of transsphenoidal hypophysectomy in 1935 which was performed by ht. col. Frederick Jasper Anderson.

Method and Materials: - A systematic literature review was carried out on "history review of neurosurgery and neurology in India" Also we find research papers, lectures and books on neurosurgery in modern India.

Results:- Neurosurgery and Neurology had not much important before independent. After independence, there were huge development in Multifold – cmc Vellore, Madras University, Bombay University, Indian Arm force's doctors and hospital also involved in development of this branch. Neurological society of India after the establishment of there were tremendous development in main as well as sub branches

Conclusions: Evolution of neurosurgery in India was from general surgery branch before independent, it was limited to arm force hospital only. CMC is pioneer, than after Madras University and Mumbai university started this branch.

KEYWORDS : History of neurosurgery and neurology, NIS, A pioneer institute: Christian medical college

INTRODUCTION:

In Morden day world-class facility is available for neurosurgery in India .Qualified personnel, equipment, laboratory with all necessary technology advancement are available at mega cities of India.

In India 500 B.C Indian physician maharishi Sushruta-(father of surgery in India) was developed to treat injuries and traumas 'jivika' personal physician of Lord Buddha who removed intracranial tumours through trephile hole at that time two neurological drugs were used known as 'sammohoni'And 'sanjivini' physical and mental exercise for neurological disorder was yoga and meditation.

In India Morden day at least 10 word class hospitals can provide all facilities neurological care with best available technology to treat patients suffering from disorders of the brain, spine or nervous system. All sub branches of Neuro is available in India, neurosurgeons neurologist neuroncologist.

Neuro anaesthetist and Neuro critical specialist are available Morden OT for surgeries needs following facilities:

1. Advance high resolution microscopes
2. Cavitron Ultrasonic surgical aspirator (CUSA)
3. High speed drills
4. State-of-the art instruments

Diagnostic and therapeutic facilities:

1. Electroencephalogram (EEG)
2. Electromyography(EMG)
3. Visual Evoked potentials(VEP)
4. Computer tomography (CT)scan
5. Magnetic resonance imaging(MRI)
6. Neuropsychological Evolution
7. Position Emission tomography(PET) Scan
8. Diagnostic cerebral Angiogram (DSA)

Also Treatment of disease like Stroke, Dystonia, Muscular dystrophy, Parkinson's disease, Alzheimer disease, Huntington disease, brain tumour benign and malignant brain tumours movement disorder, Amyotrophic lateral sclerosis (ALS) are available in India. India has world class neurosurgeons and neurologist in now a days.

DISCUSSION:

India has tremendous past of a surgical knowledge but neurology and neurosurgery left behind British government had provided limited neurosurgical facility to armed forces in

past independence era, doctors and neurosurgeon came from UK,US and Canada did lot for this country

In Modern days, neurosurgery in India is as good as any more anywhere else in the world according to Dr. Basant Mishra neurosurgery is the fastest growing disciplines in surgery science. One of the reason is we have still not understood major part of the brain .India has potential to provide neurosurgical healthcare to world through medical tourism on other hand their own country man are lack of treatment.

Every neurological procedure is very complex. Neurosurgeon do not have guidelines for everything because medical science still not understood everything.

Brief history of modern India neurosurgery:-

Sr no.	Event for person	Year	Remarks
1	Col.anderson	1935	Trans-sphenoidal hypophysectomy
2	Jacob candy	1946	Montreal neurological institute 1st N.S.C. department CMC Vellore
3	Narasimhan	1948	Private N.sx and EEG clinic madras
4	Ram Ginde	1949	N.sx Dept, sheth GSMC & Kem Bombay
5	Dr Baldev Singh	1949	Founder of modern neurology in India university of madras 1st recognized neurosurgery as speciality
6	Dr K. V Mathai	1961	First residenal in neurosurgery

Brief history of India neurosurgery

Sr no.	Event for person	Year	Remarks
1	Sushruta	600 BC	An Ancient Indian Physician Father of Indian surgery Author of Sushruta Samthita
2	Charak	100B.C	Wondering Scholar An Author of Charak Samthita Principal contributor to Ayurveda.
3	Vagbhatt		Consider as a the trinity An author of " Ashtangasangraha"
4	madhava	700 C	Indian Ayurvedik practioner author of madhava Nidana

Note: in 13th century unani (Arab + Persian) medical tradition was introduced.

Neurological society of India

On 8th dec.1951, NSI was established Dr. Jacob chandy was founder president and Dr. B Ramamurthy was founder secretary. Dr. Baldev Sing and Dr. ST Narasimhan was treasurer. This Society has started "Journal of Neurological society of India". To promote Research in India. This NSI is member of WFNS (World federation of neurological societies and federation of neurology). This society has to sub section .All full time worker in neurology, neurosurgery or its allied disciplines can apply for this society membership 1972 sub-committee for standardisation of postgraduate Education was formed with Dr. Chatterjee ,Dr.Tondon, Dr.Ramamurthi,Dr. K.S Mani and Dr.wadia as a members . Also updates the medical education program and encouraging inter disciplinary the neurological science.

India Armed forces:

There is motivating factor to soldier who has faith in their medical service. In Battlefield scenario, head and spine injuries complex neurological problems are common.

In 1953 Maj. S S Mitra was returning From Brittan receiving training in neurology. He was posted military hospital Delhi. Col. A c Ray was first neurosurgeon in joined Indian army after that Col. S S Rao and Surg. Lt. (Dr. M P Bhalla was joined Indian Army had Three Major Neurological and neurosurgical hospital at Delhi , lucknow and Pune .These centres facility for the treatment as well as training and research . Mahindra sing (former consultant Armed Forces) was became president of neurological society of India.

A pioneer institute: Christian medical collages Vellore.

In India, CMC was first medical college, which has started neurosurgical and neurological services as a department. Dr. Jacob Chandy was invited by the administration of CMC .Who was trainee at USA and Canada .At that time neurological department did not exist anywhere in India and South-Asia .There has been an exponential rise in Number of Surgeries, Number of students and Number of researchers and publication .Dr. Baldev Sing, Dr. K v Mathai and Jacob Abraham were the main names to Support first department.

Women in neurology (post independent) in India

We have to create a neurological word recognise only quality at the person but not Gender.

A survey report shows, women neurosurgeons in India, currently 34.5% are in their residency. 65.5% of women neurosurgeons are below 40 year at age majority of women neurosurgeon joined this filed as a passion 74.4 reported good excellent support from the parent department.

Good and excellent opportunity for women in this field .The burden of recruiting, encouraging and training of young female neurosurgery Student now on Shoulders of government and current women neurosurgeon.

CONCLUSION:-

In recent past, Indian neurosurgeons and hospitals have made tremendous progress in neurological and neurosurgical diagnosis and treatment, even though it is not homogeneous throughout the country with respect area, socio-economic condition and community duty to make neurology and neurosurgery more accessible and affordable. Indian neurosurgeon are highly acclaimed across the world they have highly reputed position at professional societies and academic institute. 80% of India's Super specialist Surgeons live in Urban Area. Weak Socioeconomic background patients cannot access facilities.

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