

# NewsLetter

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## EDITORIAL

### THE ART AND SCIENCE OF ANAESTHESIA “HE THAT SLEEPS FEELS NOT THE TOOTHACHE”

The desire to live free of pain is universal among all living creatures, and humans have tried to find ways to alleviate pain. The history of anaesthesia dates back to times immemorial; Even in Ramayana, Laxman was made unconscious (Murcha), by Meghnad. Though science about anaesthesia was unknown,, the concept and need of anaesthesia was already placed on record. Anaesthesia means (in Greek) “An- without” and “Aesthesia - sensation” - referring to the inhibition of sensation. Even Shakespeare's observation (from Cymbeline) explains why attempts to alleviate the pain of disease, injury or simple surgical procedures by producing unconsciousness are almost as old as civilization, although the techniques were crude.

The development and growth of anaesthesia over the years can be divided into following phases:

1. Past: Pre- 1846 -The foundation of anesthesia;
2. 1846-1900: Establishment of anesthesia;
3. Present: 20<sup>th</sup> century: Consolidation and growth;
4. Future: 21<sup>st</sup> century

#### Pre - 1846 - The foundation of anaesthesia:

Various herbal and chemical cocktails were used in ancient days for the purpose of producing anaesthesia. Most involved ingestion of ethanol, opium, hyoscine, cannabis and herbal mixtures, but 'knock-out' blows to the head and bilateral carotid artery compression (carotid derives from the Greek for stupor) are also described. These methods were impossible to quantify, and the best that can be said of many is that they were harmlessly ineffective.

Hypnotism, introduced as 'animal magnetism' or 'Mesmerism' in the latter part of the eighteenth century, can be effective in susceptible individuals, but such people are relatively rare in developed societies.

#### 1846-1900: Establishment of anaesthesia:

The branch of Anaesthesiology made its first footprint on 16<sup>th</sup> October 1846 (Ether Day) with the public demonstration of ether in Boston by “WTG Morton”, for removing tumour under jaw. The **ether** days in **Anaesthesia** practice dominated over a century. In 1847, James Young Simpson used chloroform for obstetric anaesthesia. John Snow was the first who used chloroform during childbirth of Queen Victoria (1853) and also described the stages of ether anaesthesia. Introduction of ether also started the era of anaesthesia with oxygen and nitrous oxide. Oxygen and Nitous Oxide have stood the test of time and are still widely used and almost irreplaceable.

India also kept pace with the developments in anaesthesia. The first administration of ether anaesthesia was done on 22<sup>nd</sup> March, 1847, in the Medical College Hospital, Calcutta, under the supervision of Dr. O'Saughnessy, the surgeon while the first chloroform anaesthesia in India was administered on January 12<sup>th</sup> 1848.

#### 20<sup>th</sup> century: Consolidation and growth:

20<sup>th</sup> century laid the foundation of modern anaesthesia, the notable ones being endotracheal intubation and airway instruments. A significant change in practice of anaesthesia occurred with discovery of muscle relaxants (1942) and the use of halogenated hydrocarbons (Halothane - 1951). Advent of curare produced rapid advance in the development of operative surgery. In early 1925 Mahatma Gandhi was operated upon for an emergency appendicectomy in Sassoon Hospital, Pune, using chloroform. Surgeon Col. Maddock completed the operation in the light of a kerosene lamp as electricity failed during the procedure. To mark the stay of Mahatma Gandhi in the hospital, a Gandhi Memorial was created in the old, stone building of the hospital.

Modern Anaesthesia developed in the last sixty years and the journey of MORTON' to MODERN' Anaesthesia is amazing. Classical general anaesthesia consisted of Oxygen + Gas + Relaxant + IPPV + Morphine. As Sydenham wrote in 1680, "Among the remedies which have pleased almighty God to give to man to relieve his sufferings, none is so universal and so efficacious as opium."Narcotics were the mainstay of analgesia and of common use was Morphine and Pethidine.

However, over years addiction to opioids became an issue of concern, and shift towards opioids free anaesthesia gradually set in. Regional techniques as adjunct are now very much in use, mostly subarachnoid block, and epidural and local plexus blocks. While lignocaine was most often used, newer agents like bupivacaine, levo-bupivacaine and ropivacaine which have lesser toxicity and better effect are now more often used.

Elective ventilation was another major advancement. Now, newer ventilatory modes are available. Electronic circuits are put in place of electrical circuits of earlier days and we can witness better controlled and precise ventilation during different phases of respiratory cycle. Even weaning becomes fairly easy and mathematical.

Even today, techniques of anaesthesia remain as GA, RA, Local and sedative anaesthesia. Airway control saw decreasing use of mask ventilation and the new device **laryngeal mask airway (LMA)** occupies central stage of airway management.

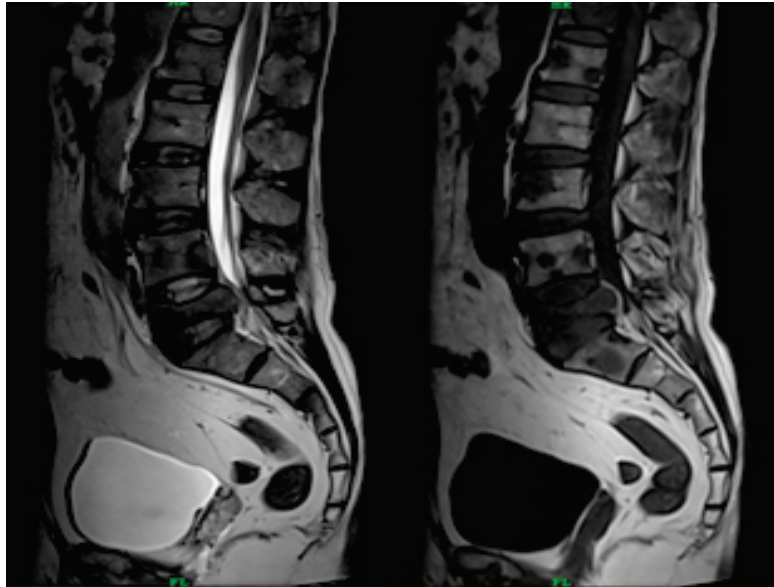
The introduction of Ultrasound has revolutionized regional anaesthesia practice. Advancements in monitoring devices, newer drugs which were more safe, and introduction to pain management and intensive care saw a rapid growth of the speciality, with newer sub specialities getting recognised. This includes Cardiac Anaesthesia, Neuro- anaesthesia, obstetric anaesthesia, intensive care, pain and palliative care and most recently onco-anaesthesia. Further advancements continue to exist.

to be continued on 4<sup>th</sup> Page

## SAVING THE CORD IN TIME!!

### MANAGING METASTATIC SPINAL CORD COMPRESSION WITH VERTEBRAL COLLAPSE

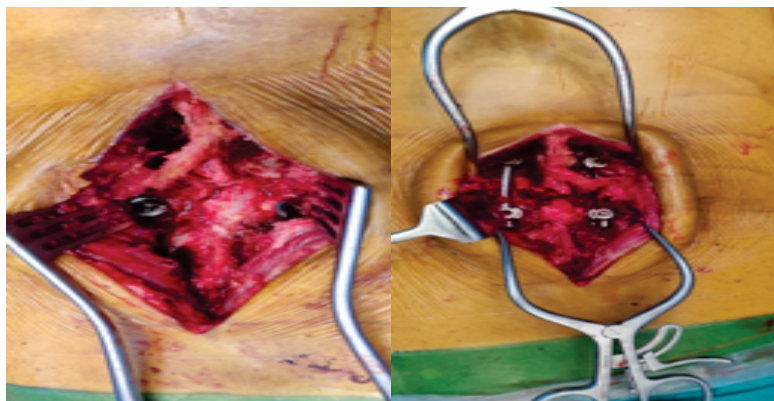
This is the story of a 56 yrs old gentleman, suffering from METATSTIC CARCINOMA LIVER. He presented to Orthopedic OPD with complaints of lower back ache with difficulty to walk since 20 days. After clinical and radiological evaluation he was diagnosed with L5 vertebra collapse with neural cord compression.



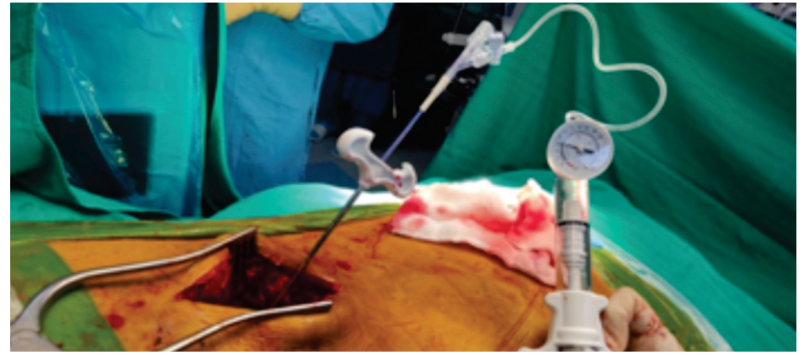
**FIG 1. PRE OPERATIVE MRI – L5 VERTEBRA COLLAPSE**

In the given situation, if timely surgical intervention is not done patient can land up in permanent neurological deficits resulting in permanent power loss in the key muscles of walking and daily need activities, hence kick starting a vicious cycle of decreased mobilization - altered bowel habits - bed sores- reduced vital capacity and chest infections and the list goes on and on.

Hence keeping all these things in mind surgical intervention was planned with SURGICAL DECOMPRESSION AND KYPHOPLASTY WITH POSTERIOR STABILIZATION.

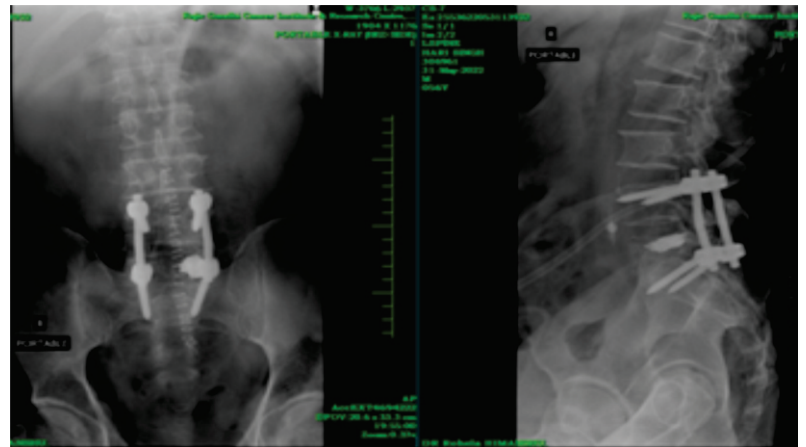


**FIG 2. INTRA OP- CORD DECOMPRESSION & POSTERIOR STABILIZATION**



**FIG 3. INTRA OPERATIVE BONE CEMENTING TECHNIQUE**

Postoperative there is significant relief from pain and over a period of couple of week's patient recovered from its neurological deficits.



**FIG 4. POST OPERATIVE X-RAYS POST STABILIZATION**



Patient is able to mobilize independently and perform his daily day to day activities the next day with tailor brace.

**FIG 5. INDEPENDENT MOBILIZATION WITH TAILOR**

Patient is generally discharged on post op day 2 and is fit to start his systemic therapy after 1 week of surgical intervention which is indeed the whole motive of such surgical intervention to make the patient able enough to undergo systemic therapy which is the ideal course for these metastatic patients.

**Dr. Himanshu Rohela**

Consultant – Orthopaedic Oncology, RGCIRC, Delhi



## CME ON GYNAE ONCOPATHOLOGY 2022

Rajiv Gandhi Cancer Institute and Research Centre (RGCIRC), Delhi in association with The British Association of Gynaecological Pathologists organized a CME on Gynae Oncopathology 2022 on Saturday, 09<sup>th</sup> July 2022 at Indraprastha Hall, RGCIRC, Rohini, Delhi. The theme of this CME was “**Diagnosing and Treating Gynaecological Cancers -The Way Forward**”.

As a CME (Continuing Medical Education) on Gynae Oncopathology, the meet brought together nearly 200 diagnosticians & oncologists from all parts of the country. The faculty included from RGCIRC and Tata Memorial Hospital Mumbai, the faculty had four experts from United Kingdom belonging to renowned institutions and part of British Association of Gynaecological Pathologists.

The sessions were divided into endometrial, cervical & ovarian malignancies with emphasis on diagnostics algorithms, molecular profiling, surgical interventions & various treatment modalities.

The CME on gynaecological cancers was planned as a crucial update for practicing pathologists and oncologists with keen interest in gynae-oncology. This also proved to be of much benefit for the young practising pathologists, medical oncologists and surgeons who are planning to choose gynae-oncology in their future. The response was overwhelming with representation of institutes in poster competition, case presentation & quiz.



## CME WITH IMA PANIPAT



RGCIRC organized a CME in association with IMA Panipat on Friday, 10<sup>th</sup> June 2022 at Hotel Gold, Panipat, Haryana. Dr. Vineet Talwar, Director - Medical Oncology delivered a lecture on **Cervical Cancer Vaccine: Nuts and Bolts** and Dr. Himanshu Rohela, Consultant - Orthopaedic Oncology spoke on **Role of 3D Printing in Bone Sarcoma**. The CME was very well appreciated by the gathering.

## DOA-ORTHOPAEDIC ONCOLOGY MEET

RGCIRC organized **DOA-Orthopaedic Oncology Meet** in association with Delhi Orthopedic Association on Sunday, 26<sup>th</sup> June 2022 at Indraprastha Hall, RGCIRC, Rohini, New Delhi.

Dr. Himanshu Rohela, Consultant - Orthopedic Oncology gave opening remarks and presented a case. The topics of scientific lectures were **Classification of Bone Tumors & Everyday Lesions**, **GCT - Treat It Well**, **PET Scan Utility in Bone Tumors?**, **Watch Your First Step: The Biopsy**, **GCT: A Case to Remember** etc. followed by two case presentations.

Eminent faculty from Delhi NCR shared their views on various aspects of management of this rare disease. DOA-Orthopaedic Oncology Meet was designed to cover basics in Orthopedic Oncology along with its development from roots to today's efflorescence. Discussion on bone tumors and its management focused on this difficult corner. The aim of conference was to highlight common problems and their solutions.

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## EDITORIAL

### The Future:

Many developments have occurred in the last 15 years in therapeutics, monitors and automation. Analgesic pharmaco-kinetics are integrated to computerized drug delivery and PCA has advanced to remifentanyl PCA. Monitors also have advanced. EEG assisted Bispectral Index has become the standard of care. MAC has now come to mean 'Madam, are you comfortable? We will see robotics in anaesthesia in future especially with the upcoming artificial intelligence and machine learning. More and more software and devices are in research phases where they give real time

accurate results by predicting the events happening during surgery. In another 10 years anaesthesia will be administered and monitored by computers. Robots will perform airway intubation. Anaesthesia machines will be speaking machines and they may tell if you are going wrong.

### Guest Editors

**Dr. Rajiv Chawla**

Director-Department of Anaesthesiology, RGCIRC

**Dr. Nitesh Goel**

Consultant- Anaesthesiology, RGCIRC

## 13<sup>TH</sup> CHEMOPORT TRAINING PROGRAMME



Department of Surgical Oncology, RGCIRC successfully organized the 13<sup>th</sup> training course in Chemoport Insertion on 23<sup>rd</sup> June – 24<sup>th</sup> June 2022 at RGCIRC, Rohini, Delhi. This 2 days course was held for doctors from various oncology centres who desired to learn this technique. It entailed interactive session by the faculty of RGCIRC as well as hands on training in the operating rooms. The topics covered were Chemoport Insertion, Hickman's Catheter Insertion, Pediatric Port, Arm Port, Peritoneal Port Insertion and snaring of fractured Port catheter. The course was highly gratifying and we received an excellent feedback.

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Rajiv Gandhi Cancer Institute and  
Research Centre, D-18, Sector - 5,  
Rohini, Delhi - 110085

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**Editor: Dr. A. K. Dewan**