

# CARE OF THE PATIENT:

BEFORE, DURING AND AFTER PROCEDURE



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# Brachytherapy



- It is a invasive procedure, done under anesthesia
- Requires care and preparation similar to surgery
  - Pre operative preparation
  - Intra op care
  - Post operative care

# POINTS TO REMEMBER



- **BEFORE**
  - Careful patient selection for the case
  - Pretreatment assessment
  - Counseling
  - Informed consent
  - Control of the medical co morbidities and General Anesthesia fitness
  - Availability of Theatre/Instruments/Physics Support
  - Part preparation for the procedure

# Patient selection



- Critical
- Site specific criteria
- Directly affect outcome in some sites.
- Motivated patient: For Elective Procedure

## Patient selection



- **All imaging must be available/reviewed**
- Sometimes EUA is needed for exact disease mapping especially mucosal disease that cant be picked by standard imaging.
- Available support system for management of emergency specially in head and neck implants.

# Counseling



- What is the need of procedure ?
- How it is performed ?
- Expected acute or late complications
- Management of complications.
- What could go wrong during the procedure and how it will be managed
- Becoming aware of patient's motivation.

# Informed consent



- Pros and cons of treatment modality.
- Need of admission and maximal possible stay in hospital.
- Cost of the treatment
- Alternate treatment modalities available
  
- Signature

# Anaesthesia fitness



- Age
- Co-morbidity
- Intercurrent illness
- Vital parameters
- Do investigations likely to be needed
- Ability of patient to cope up with the anticipated complications.



# Preparation – a day prior to procedure



- Admit a day prior to procedure
- **APPREHENSION AND ANXIETY**
  - Explain Procedure to patient
  - Arrange visit to the Brachytherapy room
  - Books, Music, T.V.
  - Anxiolytics and sedatives

# Preparation – a day prior to procedure

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- Check Blood work
  - CBC, clotting profile
  - Renal Function, Serum Electrolytes
  - Hepatic Function
  - Viral markers status
  - Diabetic

# Preparation – a day prior to procedure



- HYGIENE AND INFECTIONS
  - Part Preparation
  - Skin Care
  - Mouth wash and oral care in Head & Neck Cases:
    - Reassess mucositis
  - Vaginal Douche & S/W enema in gynae cases
  - Antibiotic / Antiseptic , SOS

# Preparation – a day prior to procedure



- Remove Dentures
- Fasting
- Control hypertension and diabetes
  - OHA omitted
- Arrange for Ryle's Tube/ Foley's catheter etc

# Physics support



- Reconfirm Brachytherapy appointment with physicist and theatre
- All the implant accessories should be checked
  - Applicators/ Templates
  - Tubes
  - Needles
  - Beads/Buttons
- **Treatment unit preparation:**
  - QA and readiness for after loading Unit

## DURING PROCEDURE



- Confirm tumor location with patient before GA (e.g. Breast implant)
- Appropriate anaesthesia (usually GA/ Spinal / Epidural)
- Generous cleaning and draping

# Positioning



- **Head Neck:** head extended, ring under head & towel roll under shoulder
- **Breast** – supine with arm abducted at 90 degree; sand bag/pillow under chest
- **Perineal implants-** Lithotomy position
- **Anorectum-** Lithotomy with sand bag under buttocks
- **Prostate:** Lithotomy with scrotum strapped or stitched to anterior abdominal wall

# EUA



- Document with diagram
  - Target Volume (Marker Seed)
  - Plan or mark entry and exit points
- Procedure
  - Feeding- Ryle's tube
  - Airway- Tracheostomy
  - Bladder catheter
  - Rectal flatus tube



# Airway



- Check patency of airway before induction
- Cuffed endotracheal tube
- Throat pack (Remember to Remove!)

# Bleeding



- Careful selection of the needle route
- Avoid multiple punctures
- Use pressure to stop bleeding
- Care during removal of implant
  - Head and neck arterial bleed- pressure over artery
  - Limb Arterial bleed- tourniquet
- Drain tubes placed (Intra op, Sarcoma)

# Oedema



- Airway obstruction
- Distortion of implant geometry
- Pain
- Procedural difficulty
  - ✦ If there is significant oedema add steroids along with NSAIDS

## After procedure: Pain



- Epidural blocks for perineal templates
- Oral or parenteral analgesia
- Comfortable position
- Divert attention with reading, music, TV.

# Post: Implant Geometry



- Check position of needles, catheters, templates regularly
- Check the position of sources (if present)
- Check for any oedema causing distortion of geometry
  - May need replanning (lip)

# Infection



- Meticulous hygiene
- Prophylactic antibiotics: Know the local trend
- Use appropriate antiseptics for skin and mucosa
- Topical antibiotics at entry and exit site
- Check dressing regularly and change if required

# Head Neck



- Daily check for position of implant tubes
- Watch for bleeding, odema, airway maintenance
- Ryle's Tube Feeding
- Tracheostomy care
- Use spacers to avoid dose to adjacent structures
  - Mouth bite for lip implant
  - Rubber tube b/w BM & alveolus
  - Lead conformer in eyelid implants

# Perineal



- Positioning– air cushion under buttocks to avoid implant assembly malpositioning
- Bowel care – light liquid diet
- Anti motility agents to avoid perineal soiling
- Flatus tube
- Bladder care/wash
- DVT prophylaxis in high risk patients

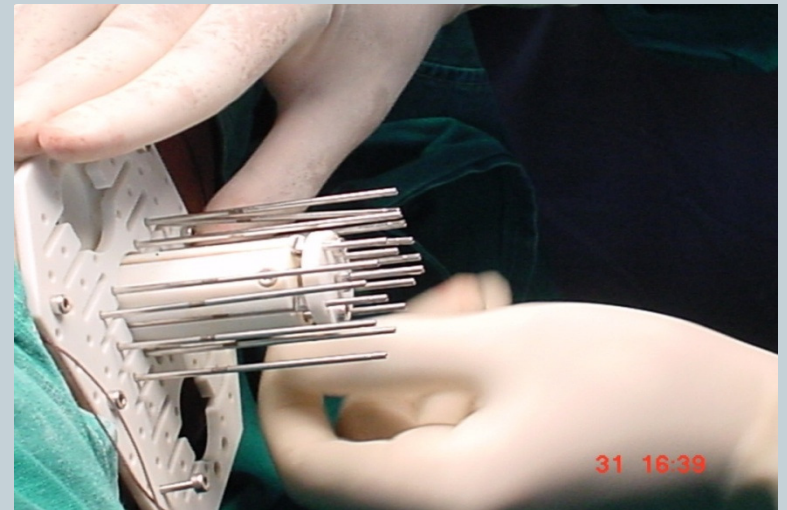


# Perineal



Watch for

- Position of implant assembly
- Bleeding
- Signs of DVT
- Abdominal girth
- Bowel sounds
- Urine output, hematuria



# Removal of Implant



- Check the date and time of removal
- Proper positioning, illumination & assistance
- Instruments - suction machine, O<sup>2</sup>, tongue depressor, speculum, proctoscope etc.
- Pre removal Analgesia
- Remove the catheters after identifying the plane and number
- Confirm removal with a recount

# Removal of Implant



- Aseptic technique - Avoid introducing infection
- Watch for bleeding
  - Suction
  - Keep ice cubes ready
  - Pressure for haemostasis
  - Bladder wash/irrigation
- Apply local antibiotic, seal puncture sites with Tincture benzoin

# After Removal of Implant



- Analgesics, Antibiotics
- Dressing until healing of skin puncture site
- Mouth wash
- Vaginal douche if appropriate
- Dental care
- Stool softener, steroid enema, sitz bath

# After Removal of Implant



- Appropriate follow up interval to assess
  - ✦ **EXPLAIN REGARDING THE TIME COURSE OF EXPECTED ACUTE TOXICITY AGAIN**
  - ✦ Acute reaction - treat symptomatically
  - ✦ Tumour response



Thank You