

**Issues in  
Obstetric Anaesthesia  
A Panel Discussion**

Moderator  
Dr. Sunil T Pandya

# Panelists:

- Dr.Ketan Parikh
- Dr. S. R. Jagtap
- Dr. Reena Vani (Obstetrician)
- Dr. Sunil Chimedia
- Dr. R. Joglekar
- S.Pantambekar

# *Case Scenario I*

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**32 years, G<sub>3</sub> A<sub>2</sub>**  
**Married for 12 years**

37 wk pregnant, GDM on diet,  
CTG shows ominous fetal bradycardia.

She had dinner just 30 min ago.

**Obstetrician required Urgent LSCS !!!**

**How important  
is the decision – delivery  
interval ?**

**Is it mandatory  
to deliver the baby within  
30 minutes ?**

**How do you classify  
Cesarean Section as per the  
NCEPOD ?**

**What pre-medication, would  
you like to give ?**

# Anesthetist decides to give a single shot spinal

- Failed spinal - Converted to GA / ETT / CV
- Thio + Atropine – Suxa – Vecuronium
- Patient reversed – standard reversal
- Regurgitates during extubation
- Settles down in 15 min - shifted to recovery room

# **1<sup>st</sup> Post - Op Day**

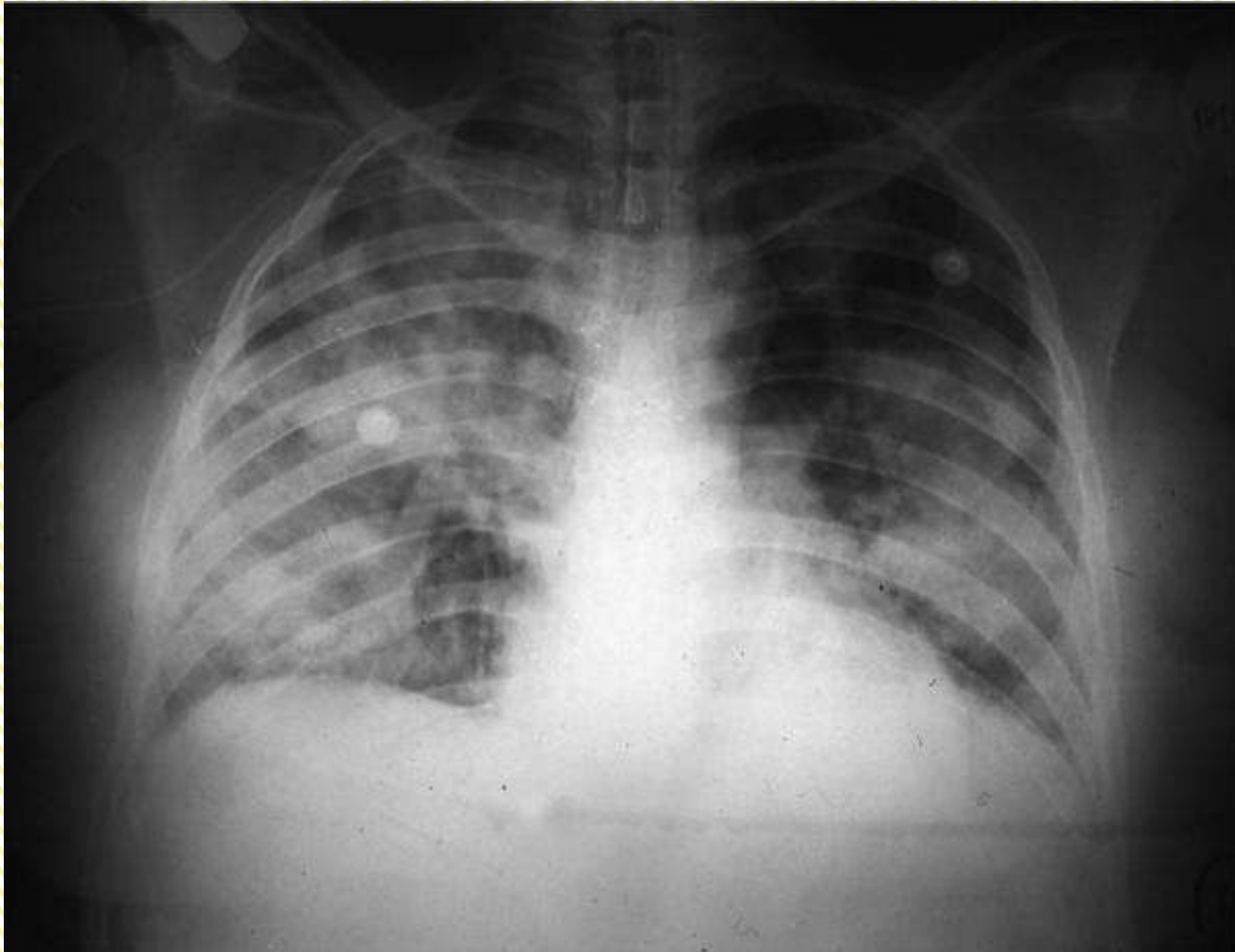
- **Breathlessness and cough**
- **Obstetrician on ward rounds requests  
anaesthesia consultation**

# **Anesthetist examines the patient**

- **Vitals**

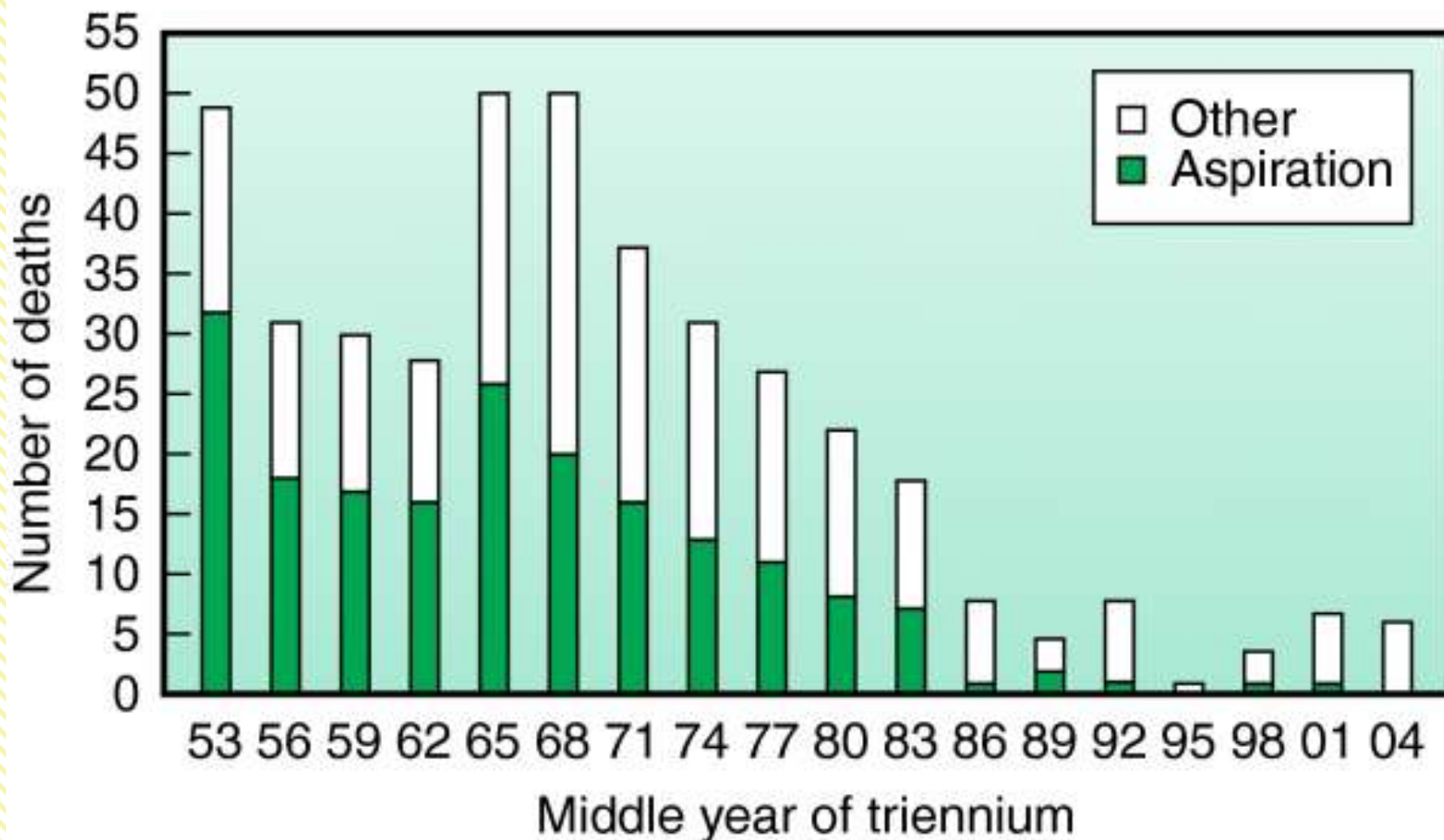
- **Temp - 100°, PR - 114 / min, RR - 32 / min**
- **SpO<sub>2</sub> - 94% on room air**
- **Diminished breath sounds**
  - **Rt. Mid, Lower zone & Lt. Lower Zone**

# Bed Side Chest X - Ray



# Maternal mortality from anesthesia and pulmonary aspiration, 1952-2005

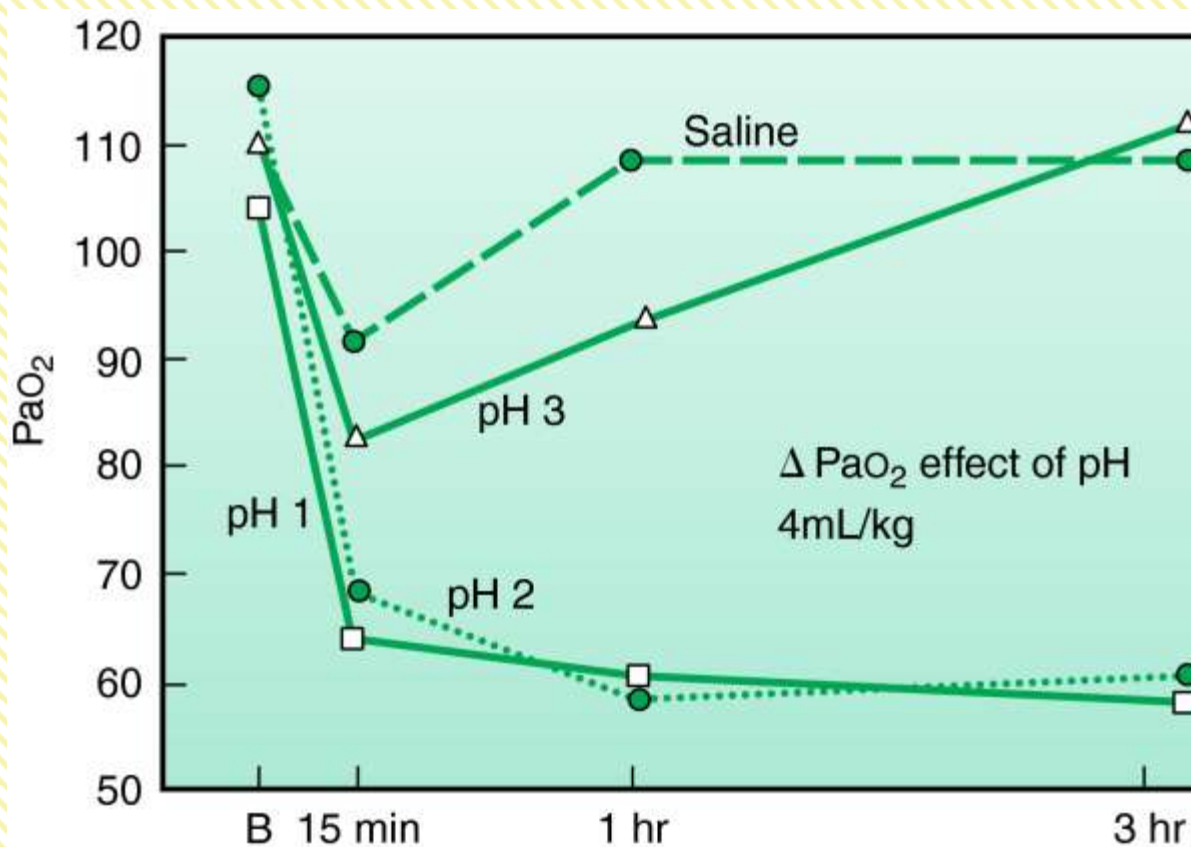
MATERNAL DEATHS DUE TO ANESTHESIA (1952-2005)



**Could this have been  
prevented ?**

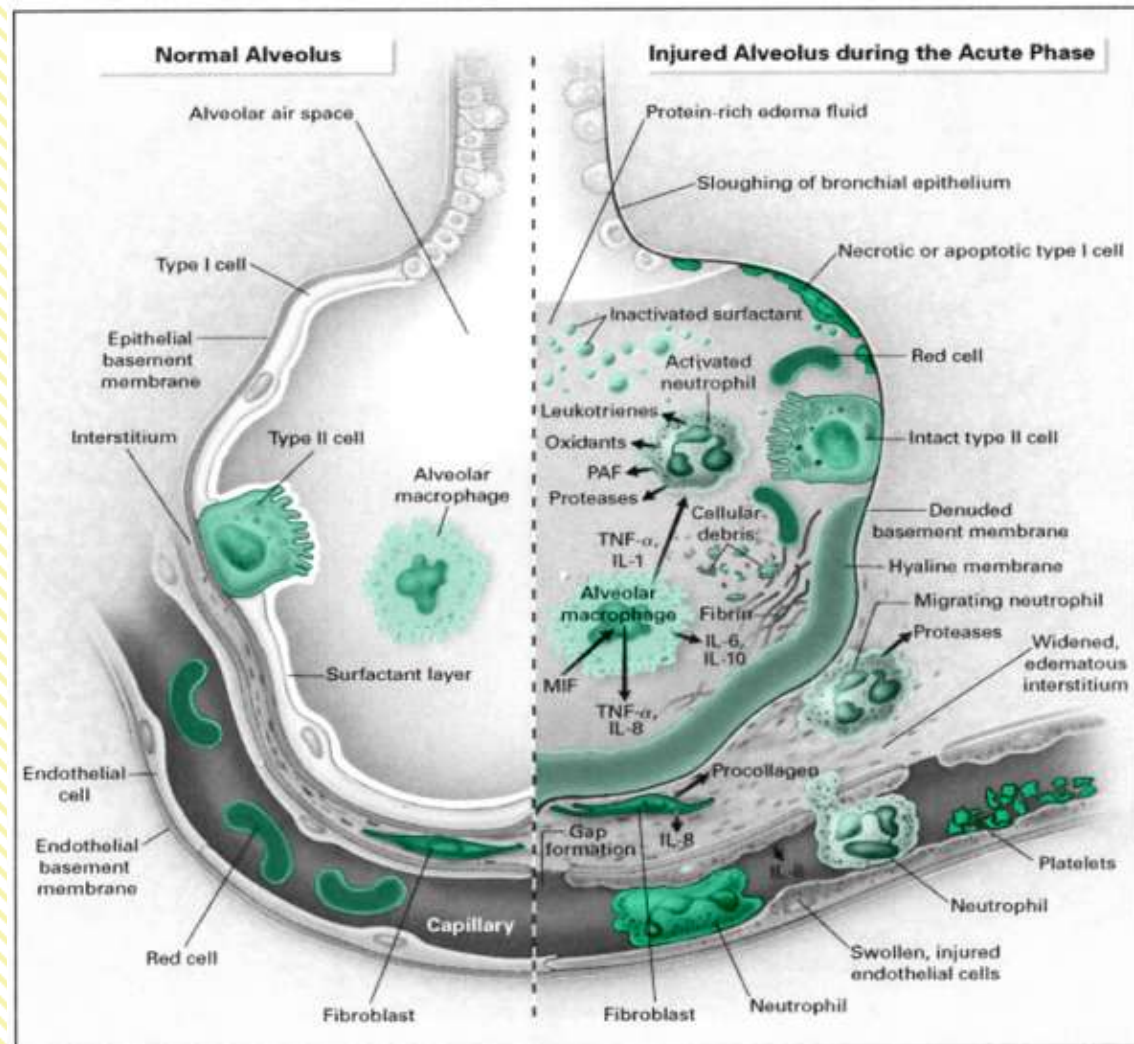
**What is the underlying  
patho - physiology ?**

**Relationship between acidity and Pao<sub>2</sub>. In this study, 4 mL/kg of fluid of varying pH was instilled into the tracheas of dogs. The severity of the hypoxemia correlated with the pH of the aspirate. A maximal decrease in Pao<sub>2</sub> occurred with aspirates with a pH of less than 2.5. B, baseline**



*From Awe WC, Fletcher WS, Jacob SW. The pathophysiology of aspiration pneumonitis. Surgery 1966; 60:232-9.*

# The normal alveolus (*left*) and the injured alveolus in the acute phase of acute lung injury and the acute respiratory distress syndrome (*right*).



# **How do you manage / treatment options ?**

**Role of steroids ?**

**Where do you shift ?**

**Ventilation ?**

**Proton Pump Inhibitors  
Vs.  
H<sub>2</sub> Blockers**

**How relevant is  
Sellick maneuver in present  
clinical practice ?**

# **Patient Improves**

- **Extubated after 48 hrs**

# *Case Scenario II*

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# **24 years, Primigravida, Term**

- **Spontaneous labour, requests epidural**
- **Anesthetist sites an epidural**
- **Encounters wet tap at L3 - L4**
- **Removes Touhy's needle**
- **Inserts at L2 - L3 space, uneventful**

# **Delivers after 10 hours**

- **Outlet forceps delivery**
- **Maintained on low dose mixtures**
- **Manual intermittent boluses**

# **4 hours after Epidural was sited**

- **Patient complains of moderate to  
severe posterior headache**

**How do you define PDPH ?**

**Is this PDPH ?**

**Incidence ?**

**Differential Diagnosis ?**

# **Treatment Options**

**Conservative Vs. Epidural blood patch**

**What are the  
conservative options ?**

**When would you like  
to do a EBP ?**

**How would you counsel  
the patient ?**

**Procedure**

# **What is epidural path blow out ?**

- **Can you prevent it ?**

# **Is PDPH of medico-legal importance ?**

**Pencil point needles**

**Vs.**

**Quinckie tip needles**

# *Case Scenario III*

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# **28 years, Primigravida with DVT**

- 10wks pregnant
- On Acitrom 2mg / day
- INR is 2.5
- Patient wants MTP
- Obstetrician schedules her for MTP

# **28 years, Primigravida with DVT**

**What are your concerns?**

# **28 years, Primigravida with DVT**

- **Role of medical Management?**
- **Do you send this patient for PAC while she is undergoing medical management?**

# **28 years, Primigravida with DVT**

- **How would you assess this patient when she comes for PAC?**

# **28 years, Primigravida with DVT**

- **How do you titrate the anticoagulants pre-procedure?**

# **28 years, Primigravida with DVT**

- **If she comes with bleeding P/V,  
how would you proceed?**

# **28 years, Primigravida with DVT**

- **Scheduled for Surgical ERPC**
- **Do you advocate the usage of US guided evacuation?**

# **28 years, Primigravida with DVT**

- **What would be your anaesthetic management plan?**

# **28 years, Primigravida with DVT**

- **When would you restart anticoagulants? What anticoagulants?**

# **28 years, Primigravida with DVT**

- **Any particular investigations you would want to do before discharge?**

# *Case Scenario IV*

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# **26 years, Primigravida Twins pregnancy**

- **36 weeks, presents in labour**
- **Time of the day : 9 pm**
- **Scheduled for Em. LSCS**
- **Full stomach**
- **PAC**

# Pre Anesthesia Check

- Short statured
- BMI - 28
- MP - II
- Otherwise unremarkable
- Decides for sequential CSEA

# **When Spinal Needle is Inserted**

- **Patient c/o paraesthesia both limbs**
- **Withdraws the SP needle by few  
mm**
- **Paraesthesia subsides**
- **Blood tinged CSF seen at the hub**

# Completes Procedure

- 10 mg Bupivacaine - heavy
- With 20  $\mu\text{g}$  Fentanyl
- Threads epidural catheter
- Procedure uneventful subsequently

# **Epidural Post Op Analgesia**

- **CEI - LDM**
- **Epidural catheter removed**
- **Patient is shifted to ward**

# On the 1<sup>st</sup> POD

- Severe pain in the back / surgical site
- Unable to void urine
- Not able to ambulate because of pain
- Anaesthetist consult obtained

**???**

- **Prescribes NSAID**
- **Bed pan**
- **Review SOS**

# 2<sup>nd</sup> POD

- **Anaesthetist called again**
- **Complaints of weakness both the legs**
- **Bladder catheterized - unable to void urine**

**How would you assess  
the patient ?**

**What are the likely  
problems ?**

**What is your diagnosis ?**

**How would you  
investigate ?**

# **Treatment Options ?**

- **Medico-legal implications ?**

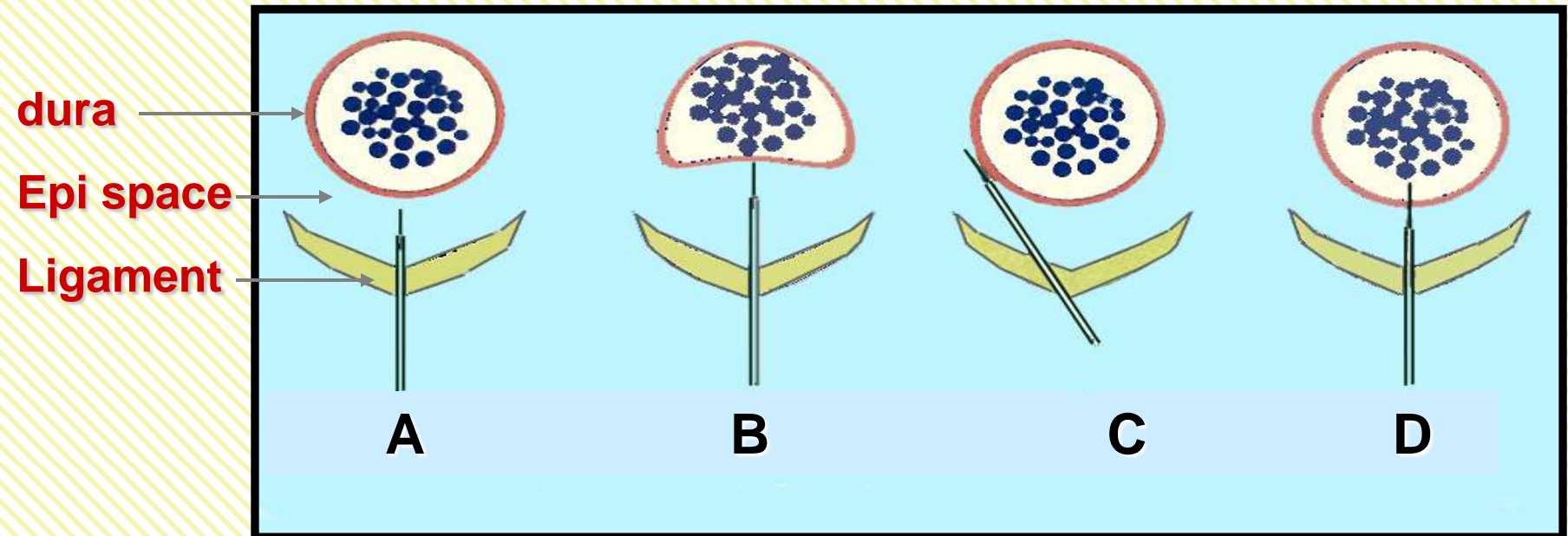
# **Risk Management Strategies ?**

# CSEA Technique

**A + D** 15mm projection beyond Tuohy tip gives >95% of dural puncture

**B + D** CSE has *Objective* sign of 'Dural Click'

**C + D** Mid-line approach essential



## Safe Practice

**The block that do not  
regress !**

***SAFETY NET***

# Direct nerve injury!

Pressures generated during epidural injection: 20psi

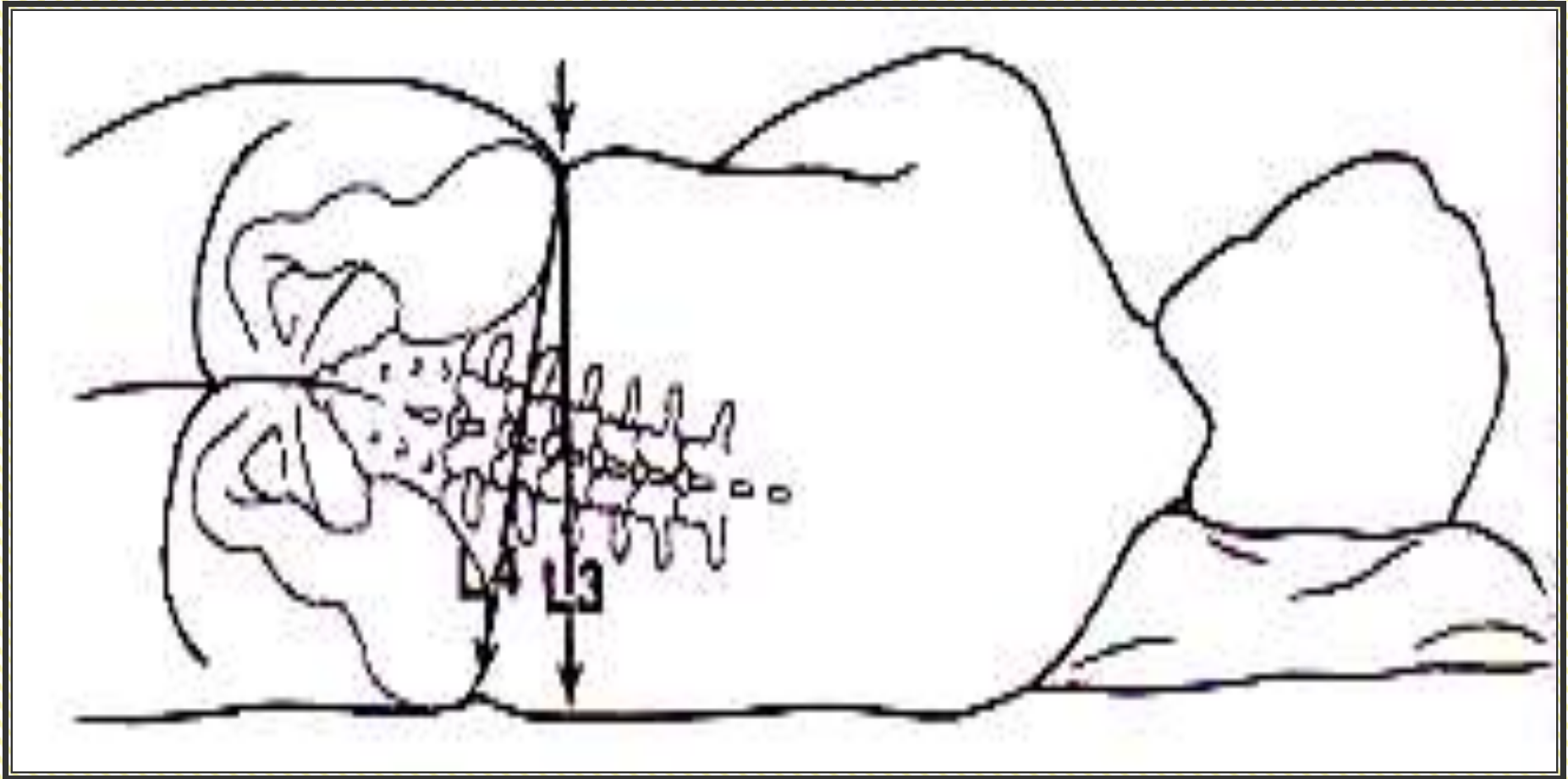
10% : @30psi

*11psi is the breakpoint for permanent nerve injury in cases of intraneural injections*

*Current concepts in anaesthesiology, sept 2006*

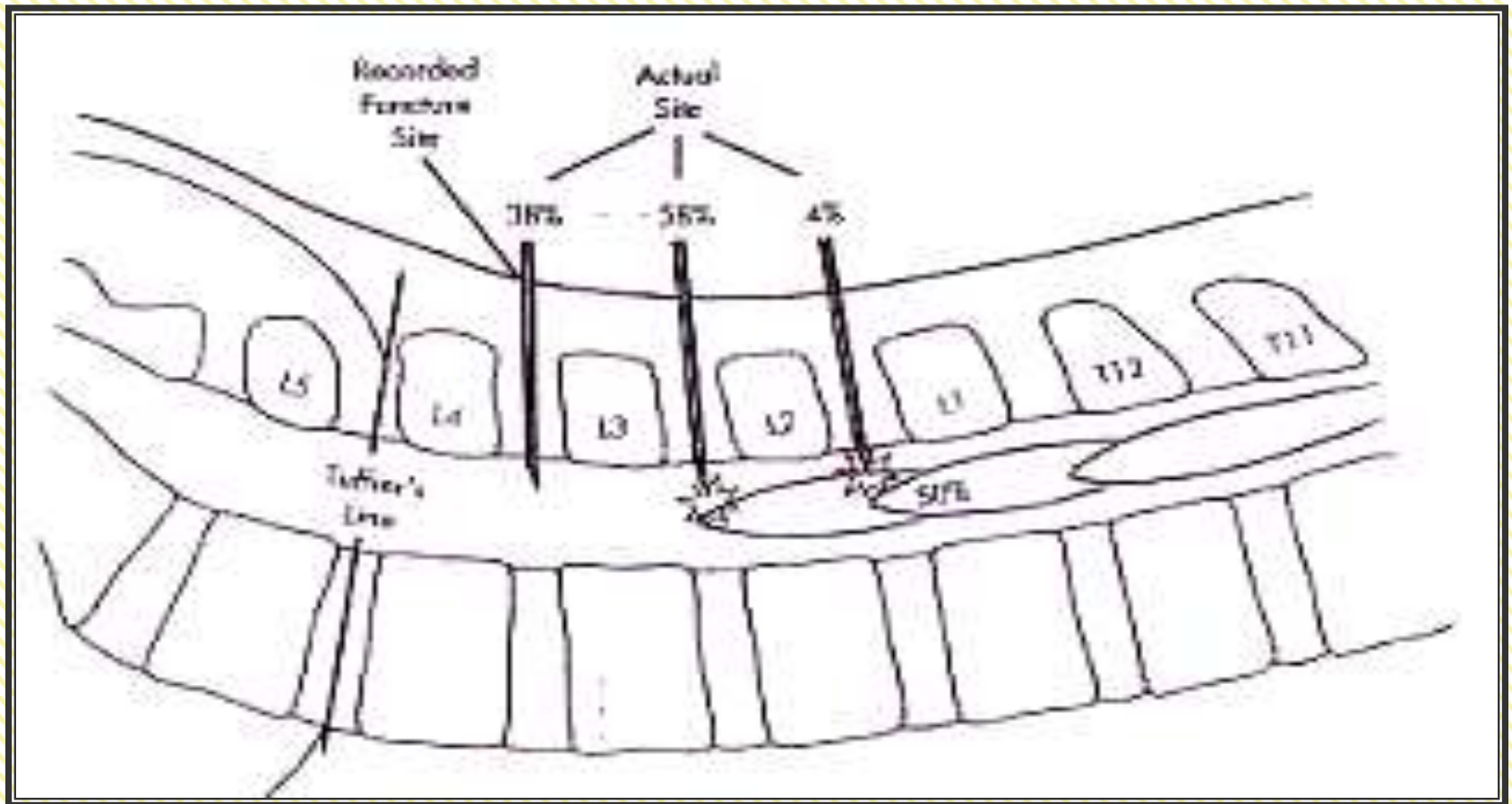
# Safe Practice

## Pelvic Tilt



# Safe Practice

## Injury to Conus Medullaris



# *Case Scenario V*

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# **30yrs, G3 P2 L1, Term pt. with Thick MSL**

- **PAC on Table!! - unremarkable**
- **Baseline Vitals: PR-96/min, BP-  
122/78mmHg**
- **Gives a conventional Spinal: 12mg  
Hyperbaric Bupivacaine, Uneventful**

# **AFTER 5 minutes....**

- **BP - 84/56mmHg**
- **PR - 82/min**

**AFTER 5 minutes....**

- **Can this be minimized?**

# LOW DOSE SPINALS

- **Role of Low Dose  
Spinals?**

# LOW DOSE SPINALS

- **How low is low dose?**

# **SPINAL HYPOTENTION: Prevention vs Treatment**

- **Preloading vs coloadung  
vs nohydration!**

# **SPINAL HYPOTENTION: Prevention vs Treatment**

- **Oxford position during  
Spinal / CSEA**

# **SPINAL HYPOTENTION: Prevention vs Treatment**

- **Choice of Vasopressors:  
When?**

# **SPINAL HYPOTENTION: Prevention vs Treatment**

- **Role of Prophylactic Vasopressors?**

# **SPINAL HYPOTENTION: Prevention vs Treatment**

- **Role of Wedge?**

# **SPINAL HYPOTENTION: Prevention vs Treatment**

- **Vasopressors in relation  
to Cord pH & APGAR**

**Wishing you all a happy  
World Anaesthesia Day  
&  
Diwali**

**Thank you**