



Non-CME Webinar Series

designed with the trainee in mind

first Tuesday of the month

Brought to
you by



THE ASSOCIATION OF
PAIN PROGRAM DIRECTORS
ADVANCING EDUCATION IN MULTIDISCIPLINARY PAIN MEDICINE

COMPLICATIONS



Non-CME Webinar Series

designed with the trainee in mind

first Tuesday of the month

Brought to
you by



THE ASSOCIATION OF
PAIN PROGRAM DIRECTORS
ADVANCING EDUCATION IN MULTIDISCIPLINARY PAIN MEDICINE

Epidural hematoma

- The calculated incidence is approximated to be less than 1 in 150,000 epidural and less than 1 in 220,000 spinal anesthetics
- Interlaminar procedures higher risk (ESI, SCS)
- Cervical area higher risk >Lumbar>thoracic
 - Posterior epidural space size 0.4mm < 4 – 7mm < 7.5 mm
- Extensive thin-walled valveless venous plexus.
 - Fragility increases with age
 - 28% blood vessel trauma at the upper lumbar region
 - Plexus distention close to segments of central canal stenosis



Non-CME Webinar Series

designed with the trainee in mind

first Tuesday of the month

Brought to
you by



THE ASSOCIATION OF
PAIN PROGRAM DIRECTORS
ADVANCING EDUCATION IN MULTIDISCIPLINARY PAIN MEDICINE

- Spinal stenosis: most common spinal disease related with epidural hematoma (check your images before neuraxial Px!!)
- Other risk factors: Thrombocytopenia, CKD, INR>1.5, liver disease surgical scarring at the area of insertion.
- Reports with Heparin>Aspirin>Warfarin>NSAIDs
- 80% of the patients developing spinal hematoma had severe neurological symptoms with paresis or paralysis. Surgical evacuation <12 hours best. MRI
- Hematomas were identified in 37% of patients without antithrombotic therapy.



Non-CME Webinar Series

designed with the trainee in mind

first Tuesday of the month

Brought to
you by



THE ASSOCIATION OF
PAIN PROGRAM DIRECTORS
ADVANCING EDUCATION IN MULTIDISCIPLINARY PAIN MEDICINE

THROMBOTIC EVENTS

- Timing
- Chronic pain is a hypercoagulable state
 - Increase fibrinogen and factor VII
 - Reduce fibrinolytic activity and prostacyclin
 - Increased platelet activity
- Discontinuation of ASA -> Rebound effect on TXA2 production
 - Increased risk of MI day 8th when used for secondary prophylaxis.
- Warfarin initial protein C inhibition.
- Avoid stopping anticoagulation
 - DVT – 3 months
 - MI – 3 months (if DES placement, 6-12 months)
 - Stroke – 9 months
- Consider bridging: Mechanical heart valve, Hx of VTE while on anticoagulation and CHADSVASc score >6