PAIN CONTROL IN THE PATIENT WITH ACUTE/CHRONIC PAIN

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Disclaimers

- Speaker Bureau
  - Avanir Pharmaceuticals
    - Nuedexta
  - Pfizer Inc.
    - Embeda
    - Lyrica
FOCUS

- Pharmacologic interventions
- Invasive pain management techniques
- Non-invasive pain management techniques
- Analgesia in difficult patients
- Pain control in commonly encountered trauma conditions
INTRODUCTION

- Trauma is a major cause of mortality throughout the world
  - Major advances have been made in trauma management
    - Reduced mortality
    - Enhanced function
  - One of the areas----PAIN CONTROL
PAIN CONTROL

- Has led to increased comfort in patients
- Reduced morbidity
- Improved long-term outcomes
PAIN CONTROL

- Treatment of pain in the setting of acute injury or surgery
- Pain management in patients
  - Some of whom develop CHRONIC PAIN
Sources of Pain in the Patient

- Multiple trauma
  - Superficial/Deep musculo-skeletal injuries
  - Fractures
  - Abrasions
  - Degloving injuries
  - Neuropathic pain
  - Thrombosis
  - Ischemia
Sources of Pain in Patient

- Iatrogenic causes
  - Cannulas
  - Thoracic drains
  - Repeated injection
- Other
  - Distended bladder
Effects of Pain in the Patient

- Increased stress response
  - Increased metabolic demands
  - Increased energy demands
  - Delayed wound healing
  - Decreased immune function
  - Weight loss
  - Lack of sleep
  - Decreased mobility
Effects of Pain in the Patient

- Decreased mobility
  - Increase in conditions associated with prolonged recumbency
    - Pneumonia
    - Nosocomial infections
- Adequate pain control
  - Shorter hospital stay
  - More rapid return to more normal function
Signs of Pain in the Patient

- Usual behaviors associated with pain may be obscured by
  - Trauma
  - Debilitation
- Agitation may complicate the recognition of pain
- May demonstrate “Pain Behaviors”
Signs of Pain in the Patient

- Signs indicative of pain
  - Restlessness
    - Shifting position
  - Change in demeanor and interactive behavior
    - Vocalizing
      - Grunting
      - Screaming
    - Changes in
      - Heart rate
      - Respiratory rate
      - Blood pressure
Medications

- 3 main groups
  - Opioids
  - Non-steroidal anti-inflammatory medications
  - Local analgesics
- Others
  - Anti-seizure medications
  - Antidepressants
Medications

- **Opiates**
  - **IV**
    - Morphine
    - Dilaudid (Hydromorphone)
    - Fentanyl
    - Demerol (Meperidine)
  - **Oral**
    - Oxycodone (Percocet, Percodan, Roxicodone)
    - Hydrocodone (Lortab, Norco, Hydromorphone (Dilaudid)
    - Oxymorphone (Opana)
    - Demerol (Meperidine)
    - Methadone
    - Tramadol (Ultram)
    - Tapentadol (Nucynta)
    - Darvocet/Darvon
Medications

- Oral
  - Fentanyl transmucosal
    - Abstral
    - Actiq
    - Fenora
    - Onsolis
    - Subsys
  - Fentanyl transdermal
    - Duragesic
  - Fentanyl nasal
    - Lazanda
Medications

- NSAIDS
  - Toradol
  - Celebrex
  - Voltaren
    - Gel
    - Patch (Flector)
- Motrin
- Naproxen
Medications

- Contraindications
  - Analgesia
    - After Cardiovascular stabilization
  - Mentation
    - Assessed prior to administration of medications producing sedation
      - Includes all analgesics except
        - NSAIDS
        - Local anesthetic techniques
  - High doses of opioids
    - May cause
      - Respiratory depression
      - Retention of CO2
Medications

- Resulting in
  - Increased blood flow
  - Raised intracranial pressure
  - High doses should be avoided in patients with head trauma
    - Unless ventilatory support is provided

- NSAIDS
  - Decreased renal auto-regulation
  - Decreased gastric mucosal protection
  - Decreased platelet activity
  - Should not be used
    - In the presence of hemorrhage
    - Decreased renal blood flow
    - Decreased gastro-intestinal blood flow
Medications

- Local analgesics
  - Lidoderm patches
  - Lidocaine cream/ointment
  - EMLA cream
  - Compounded Creams
Medications

- Anti-seizure medications
  - Neurontin
    - Gralise
    - Horizant
  - Lyrica
  - Topamax
  - Zonagran
Complications Preventing Use of Some Treatments

- Hypovolemia
- Coagulopathies
- Spinal Cord Injuries
- Traumatic Brain Injuries
- Decreased Blood Pressure
Multimodal/Interdisciplinary

- Injection
- Nerve Blocks
  - Intercostal Nerve Blocks
  - Occipital Nerve Blocks
  - Sphenopalatine Nerve Block
  - ESI
  - Other Peripheral Nerve Blocks
- Trigger Point Injections
Multimodal/Interdisciplinary

- Therapies
  - PT
  - OT
  - Behavioral Medicine

- Modalities
  - Ice
  - Heat
  - TENs
  - Laser treatments?
Conclusion

- There are a number of ways of controlling pain after an injury, surgery, or major trauma
  - Requires an understanding of the pathology of nociception and attention to the patient’s complaints
- Pain is controlled not removed
- Initial adequate control of pain can aide in the prevention of Chronic Pain
- Monitor the effects of medication used
  - Modify approach when the approach used is interfering with progress
Conclusion

- Understanding the natural history of the problems involved in a particular set of injuries helps in the planning of pain treatment strategies to fit.
THE END

- QUESTIONS??????
REFERENCES

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