

Best Practices in Cervical Spine Treatment

Chairperson: Dr. Tony Tannoury

Monday, March 25th, 2019

8:50-9:50am

*Work Related Injuries Workshop
March 24th & 25th, 2019*

RTW following ACDF



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RTW following ACDF (15min)

COI:

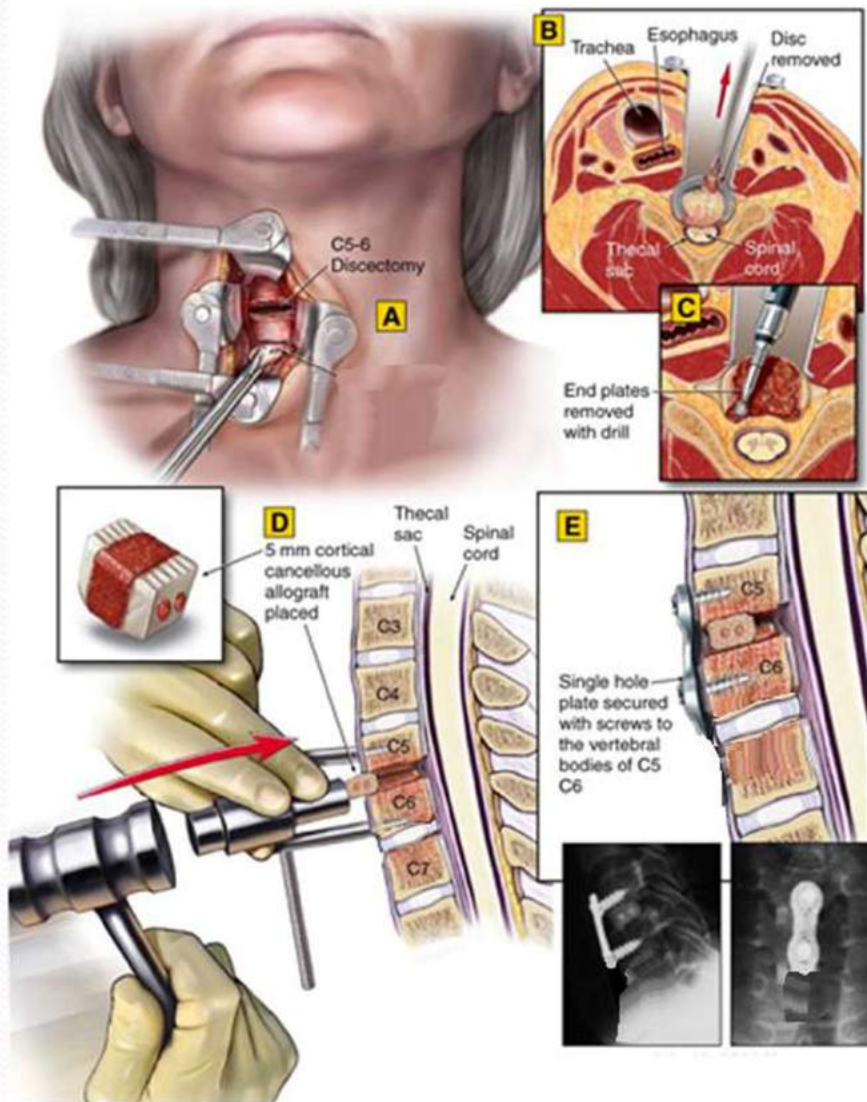
- Nothing pertaining to this presentation



Introduction

- ACDF: definition – indication
- Outcomes in NON-WC general population:
 - 90% improvement of symptoms (radic-myelop)

ACDF



Negative Factors affecting RTW: NON-WC patients!

- RTW: 83% - Median ~ 35 days
- Labor intensive occupation
- History of CAD
- History of COPD
- Diagnosis: HNP (vs. stenosis)
- Treatment:
 - Cervical corpectomy
 - Longer operative time

Kim et al, Spine 2019

ACDF in WC patients?

- Outcomes in WC patients (1-2 ACDF) @ 1y f-up?
 - Lower clinical improvement
 - Higher revision rate
 - Greater proportion of smoker
 - Increased occupation demands

Tabaraee et al, Spine 2015

Influencing factors?

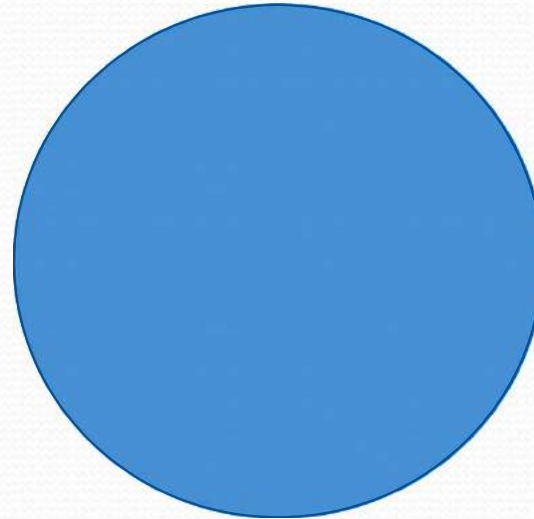
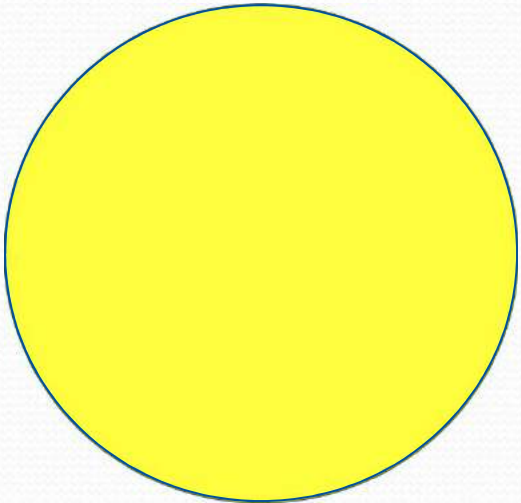
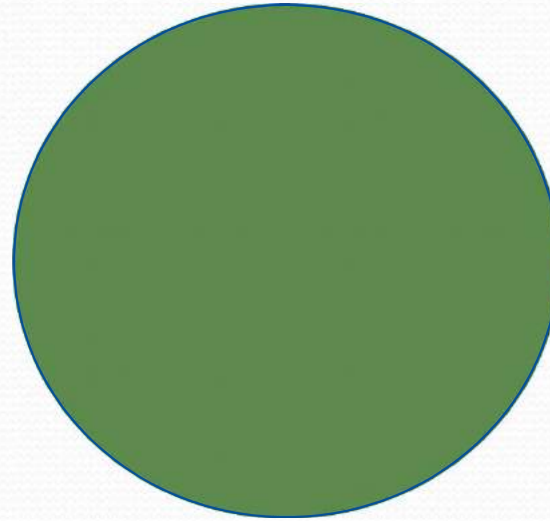
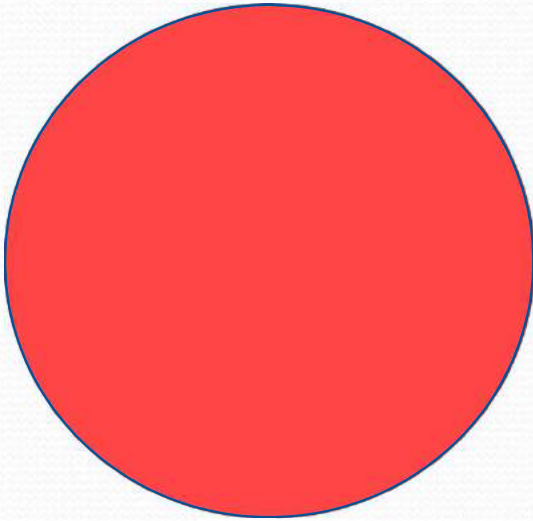
- Injury factors

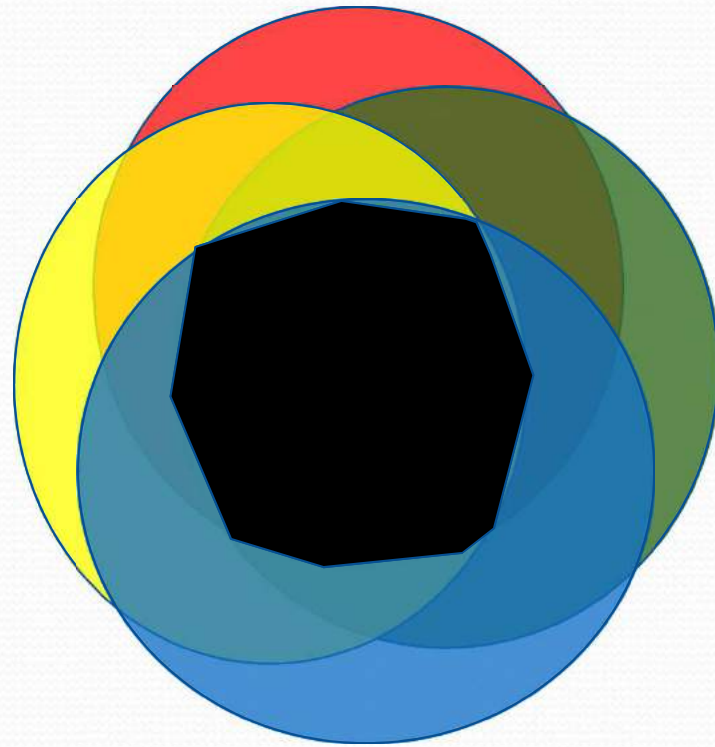
- Patient factors

- Job factors

- System factors

Influencing factors?





Factors affecting RTW: Mental Health?

- Baseline Mental Health:
 - No effect (despite greater pain & disability)

Goh et al, Spine 2018

Factors affecting RTW: Opioid Use?

- Short term (<3mo), Intermed (3-6mo), Long Term (>6mo)
 - Odds RTW LTO/STO: 0.49
 - Odds RTW < 1 year postop: LTO/STO (0.43)

Faour et al, Spine 2017

Factors affecting RTW: Radiculopathy vs. Spondylosis?

- Single level disease: DDD vs. Radiculopathy
 - DDD → lower RTW within 1 year (39.9%)
 - Radiculopathy → RTW within 1 year (53.1%)

Faour et al, Spine 2016

Factors affecting RTW: Single Level vs. Multilevel Disease?

- Multilevel disease DDD without radiculopathy:
 - Lower RTW (vs. radiculopathy)
 - Higher disability
 - Higher opioid use
 - Multilevel disease: Lower RTW at 3 years postop vs. single level disease

Faour et al, Spine 2017

Factors affecting RTW: Other NEG factors!

- Age > 50
- OOW > 6 mo prior to surgery
- Opioid use
- Legal litigation

Faour et al, Spine 2017

SUMMARY

- Older age > 50 (COPD, CAD)
- Labor intensive jobs
- HNP (vs. stenosis)
- Neck Pain (vs. Radiculopathy)
- Multilevel DDD (vs. single level)
- Long term Opioid use > 6mo (vs. Short term <3mo)
- OOW duration > 6mo
- Legal litigation status
- Procedure: Corpectomy, longer duration (vs. ACDF)

SUMMARY

Non Modifiable Factors

- Older age > 50
- Med Morbid (COPD, CAD)
- HNP (vs. stenosis)
- Neck Pain (vs. Radic)
- Multilevel DD (vs. single)
- Procedure: Corpectomy, longer duration (vs. ACDF)

Modifiable Factors

- Labor intensive jobs
- Long term Opioid > 6mo (vs. Short term <3mo)
- OOW duration > 6mo
- Legal litigation status

Thank you!

Indications, Risks and Benefits of Cervical Epidural Steroid Injections

Eduard Vaynberg MD

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New England Pain Management Consultants at:

Boston Medical Center

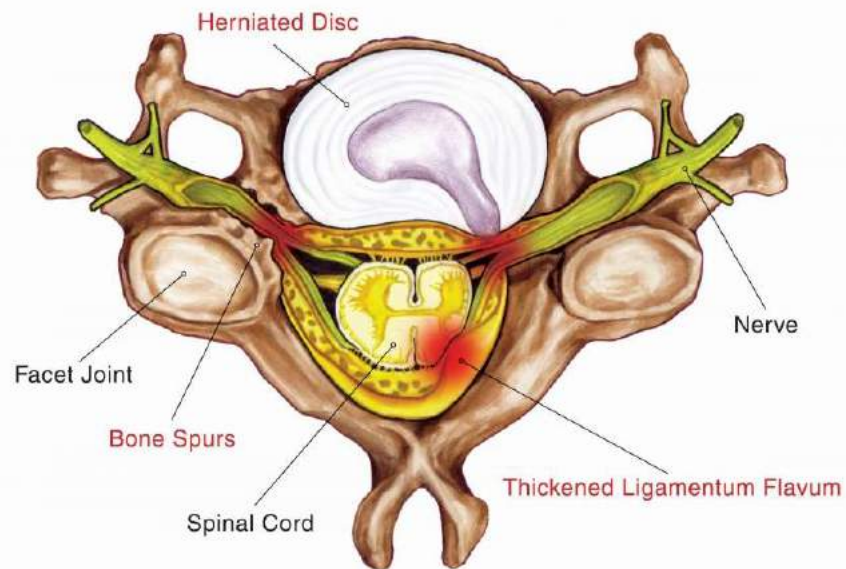
Boston Outpatient Surgical Suites

New England Baptist Hospital

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Anatomy and Pathology

Example of Spinal Nerve Compression (viewed from above)



Indications for Cervical Epidural Steroid Injections

- Cervical radiculopathy (neck pain shooting down upper extremities) or cervicalgia (axial neck pain) with or without neurological deficit caused by cervical disk herniation or spondylosis, spinal stenosis
- X rays and MRI confirming the pathology
- Failure of conservative management
 - Physical therapy modalities
 - NSAIDS and/or Oral Steroids

Benefits

- Manchikanti et al, 2013
- Cervical disc herniation Quality Scores: Cochrane = 11/12
- Total = 120 Average number of injections = 5 to 6 for 2 years
- Significant improvement > 50% pain relief and > 50% functional status improvement
- Cervical interlaminar epidural injections effective in 80% of subjects in the successful groups after 2 years
- An active-control trial conducted **with fluoroscopy** under appropriate circumstances in a private practice with contemporary interventional pain management techniques.



Benefits

- Evidence for successful outcomes is weaker for axial neck pain and neck pain caused by cervical spinal stenosis

Cervical Epidural Steroid Injection





Risks

- Overall injections are very safe: our group performed more than 10000 injections over more than 10 years without ANY serious complications
- Common complications (about 1%): spinal fluid leak leading to headache, fever, leukocytosis, facial flushing, insomnia
- Rare devastating complications: spinal cord injury leading to paralysis (most reported cases are from procedure done under deep sedation)