

CT JUNCTION APPROACH & COMPLICATION



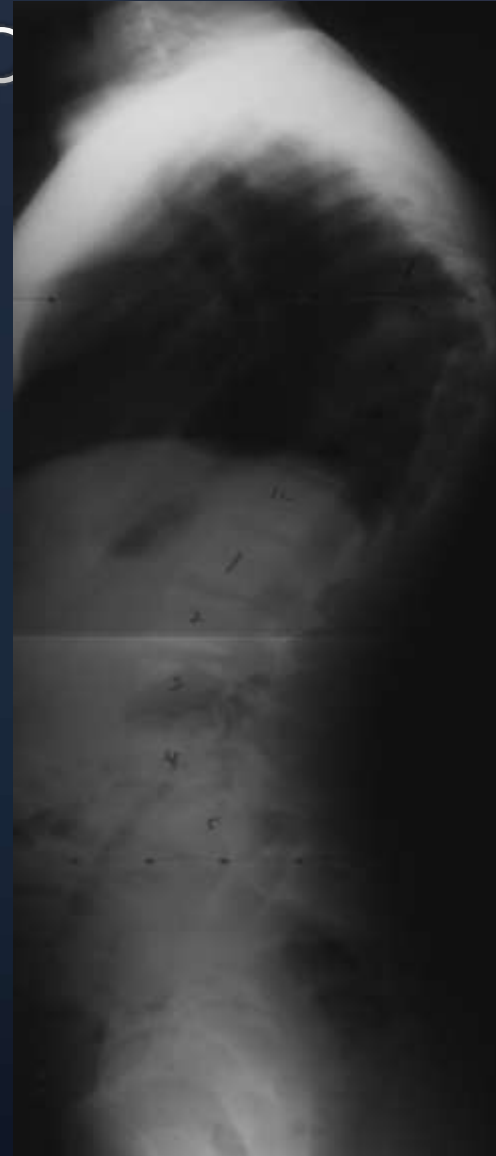
WAYNE CHENG, MD

BONES AND SPINE

INTRODUCTION

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COLIC



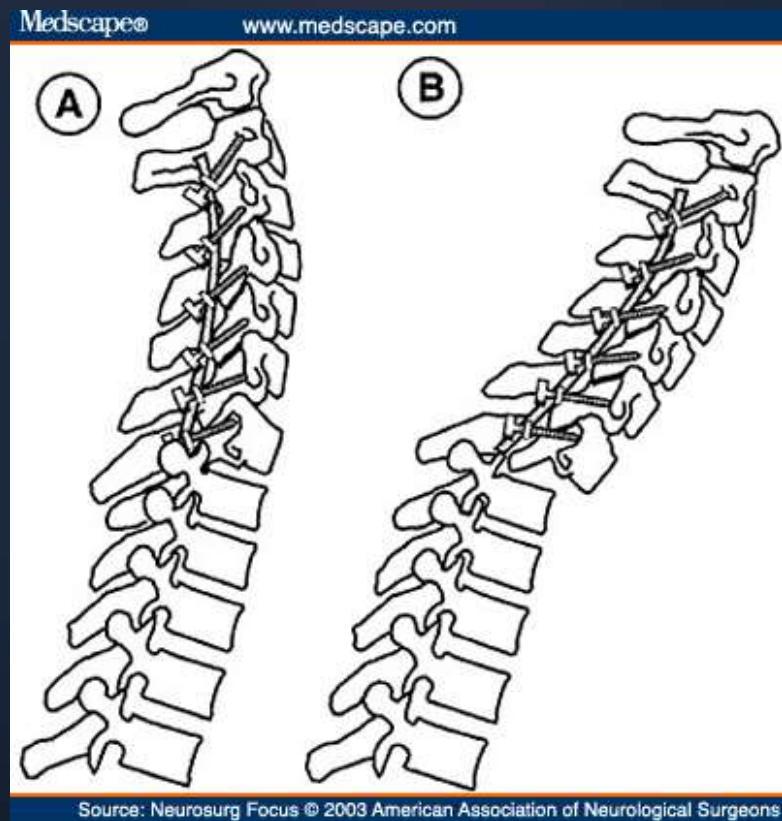
INTRODUCTION-CASE STUDY



INTRODUCT

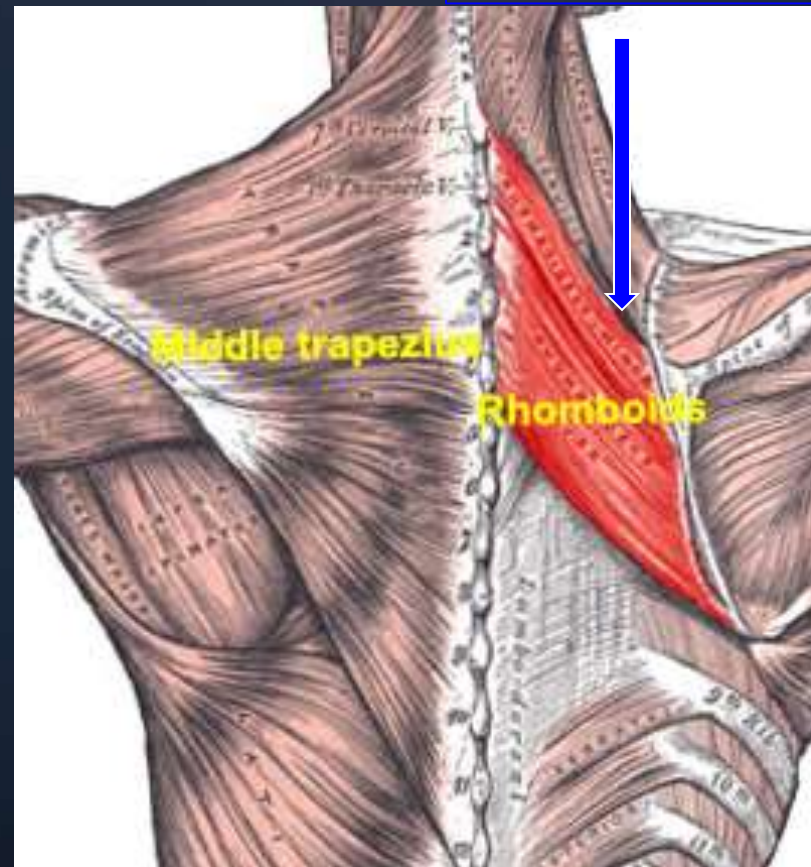
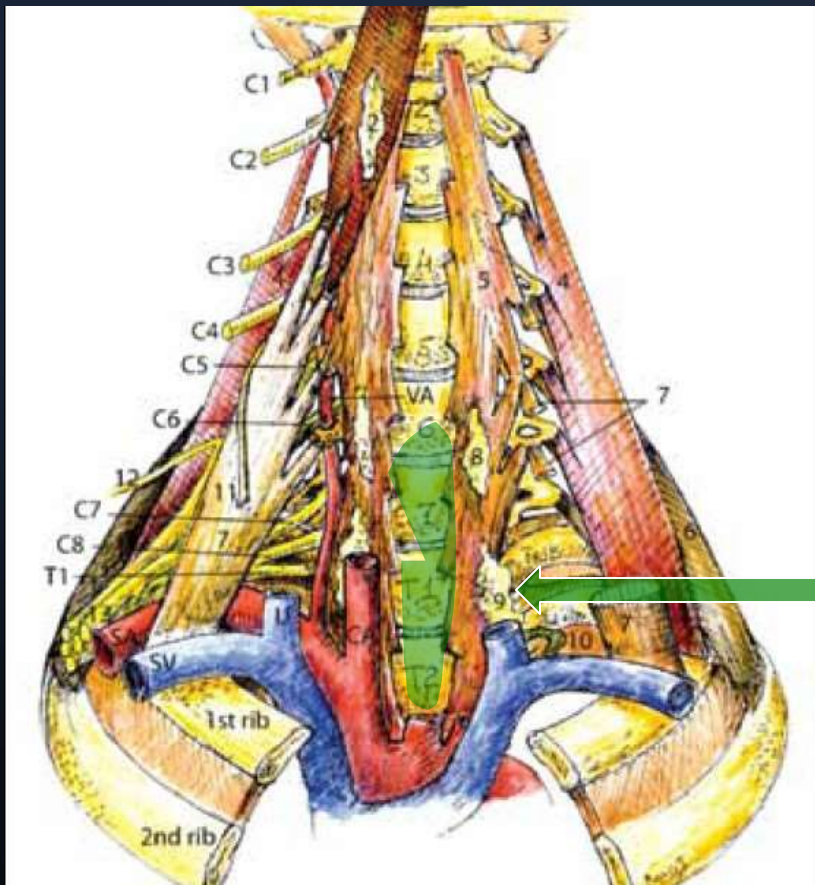


CTJ - ANATOMY



CTJ-ANATOMY

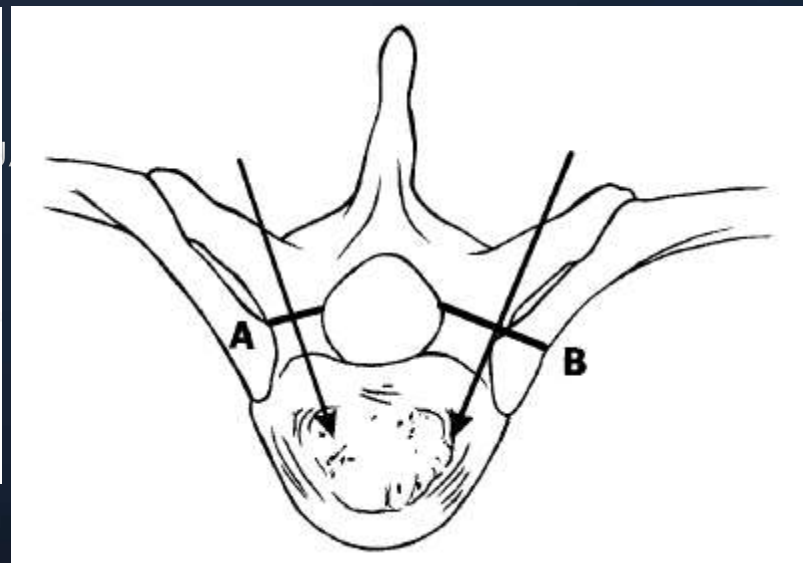
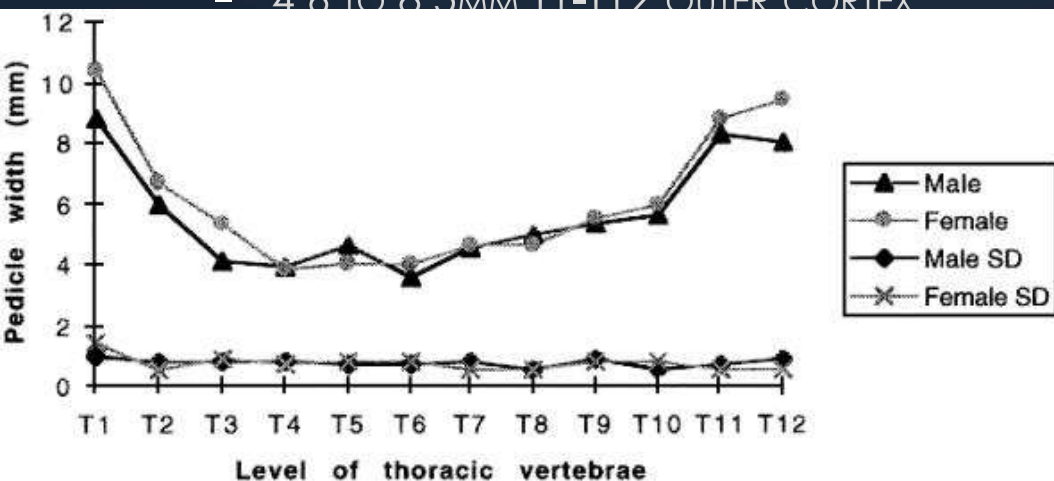
Laminoplasty?



THORACIC PEDICLE DIMENSIONS

■ M/L PEDICLE WIDTH

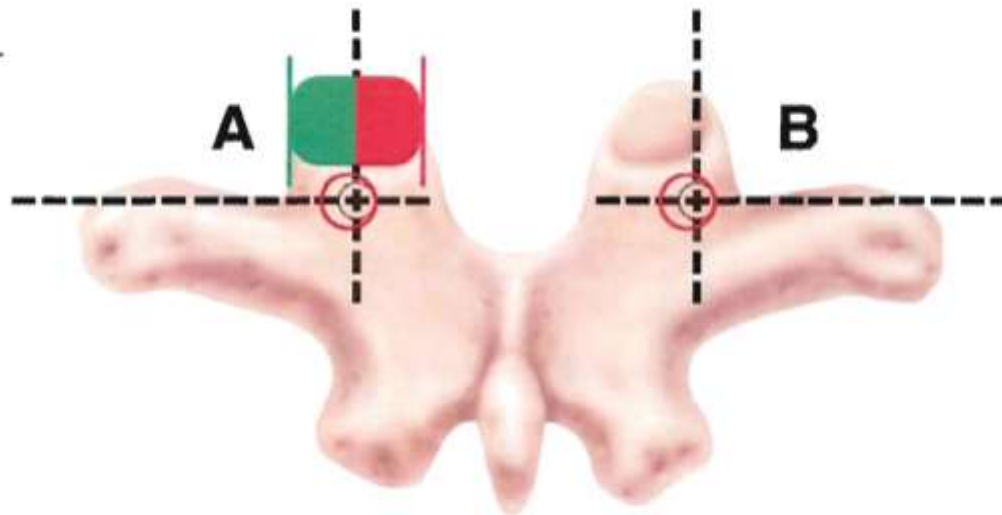
■ 4.6 TO 8.5MM T1-T12 OUTER CORTEX



STARTING POINTS

SUPERIOR FACET RULE (A)

Color Reference Chart

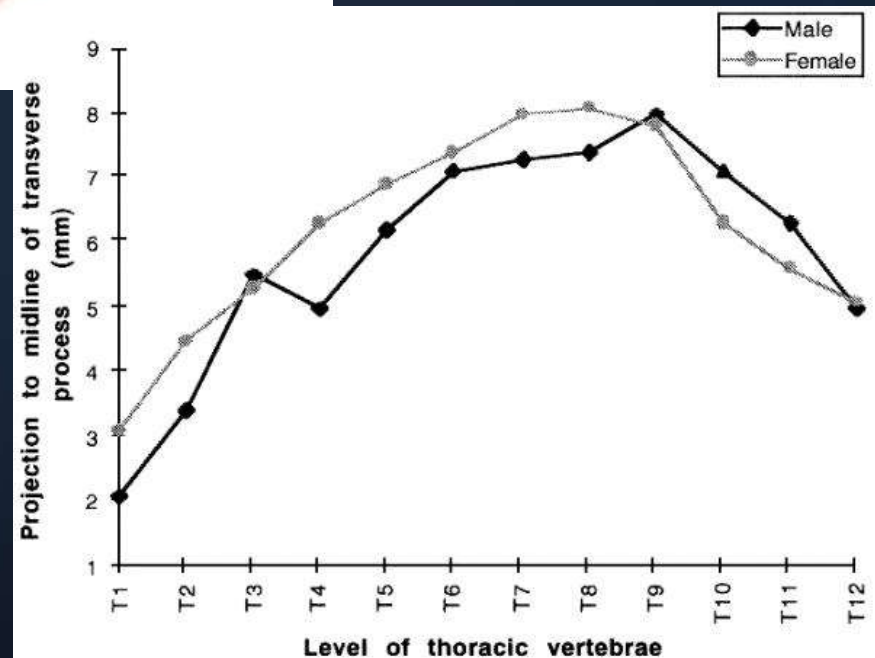
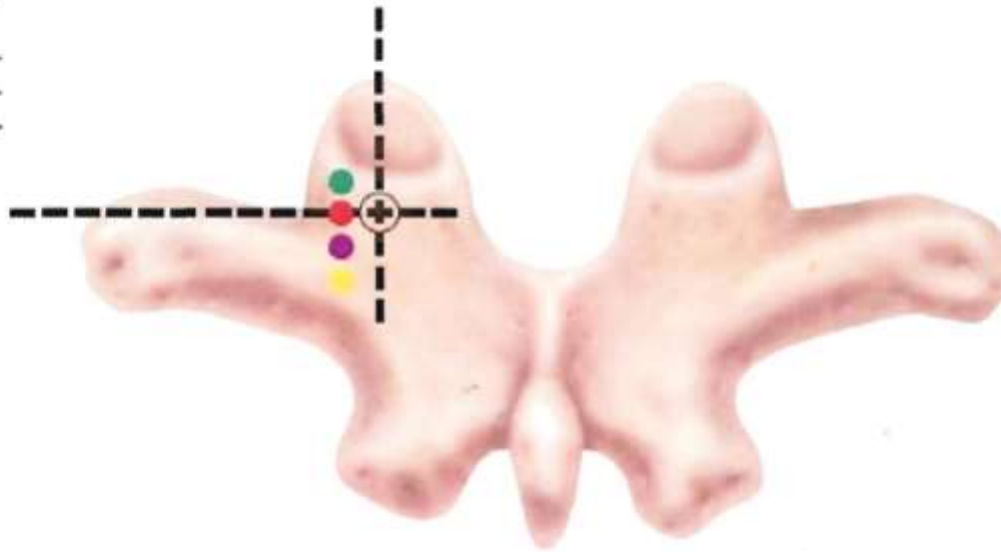


NOTE: Do not start medial to the midpoint of the superior facet.

CEPHALO-CAUDAL STARTING POINTS (B)

Color Reference Chart

Green	T9, T8, T7
Red	T10, T6
Purple	T11, T5, T4
Yellow	T12, T3, T2, T1

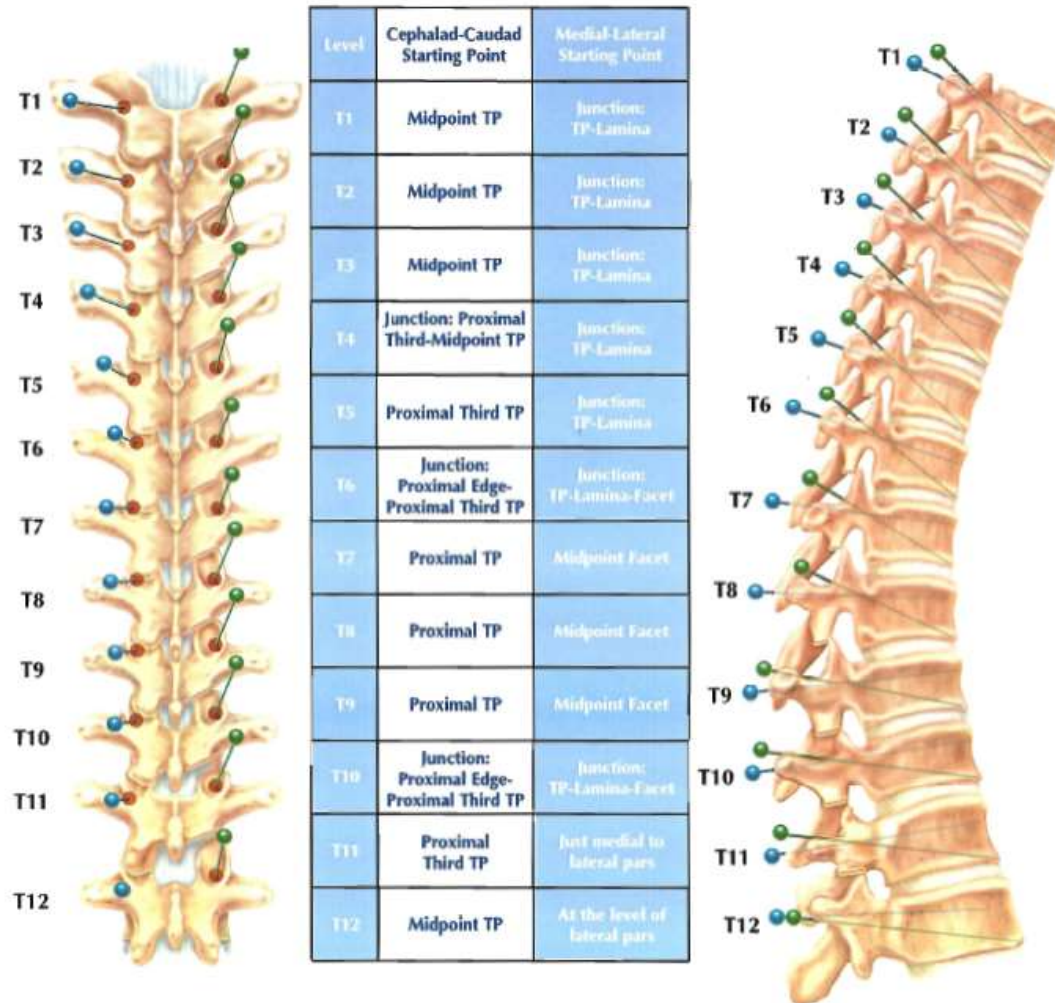


Projection of the Thoracic Pedicle and Its
Morphometric Analysis.

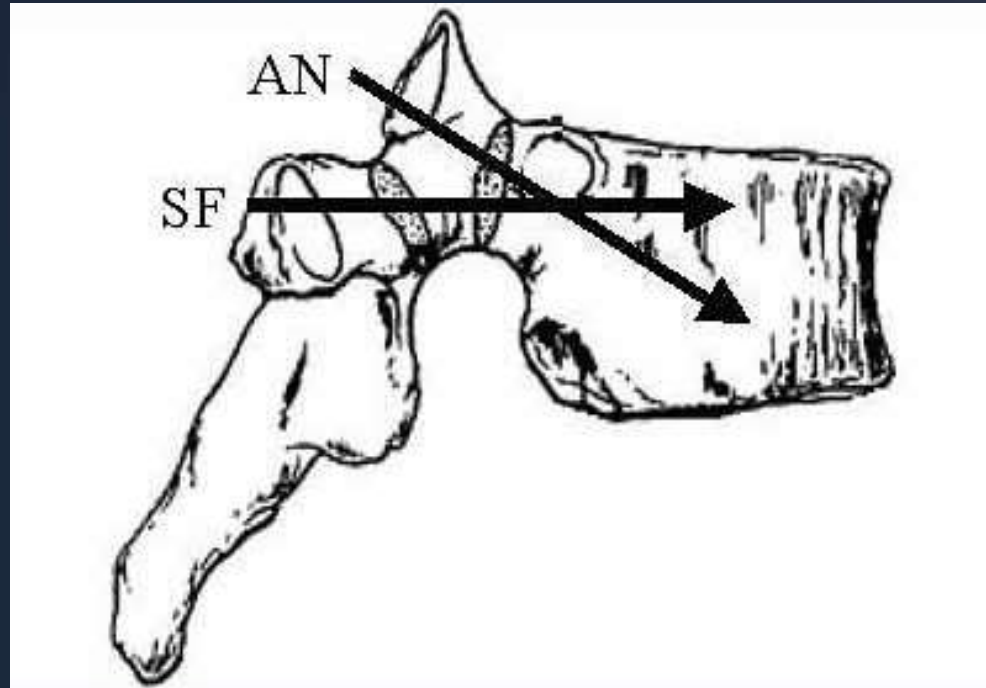
Ebraheim, Nabil; Xu, Rongming; Ahmad, Muhammad;
Yeasting, Richard

Spine. 22(3):233-238, February 1, 1997.

Use Fixed Angle or Multi Axial Screws for the straightforward approach (Blue Pins).
Use Multi Axial Screws only for the anatomic approach (Green Pins).

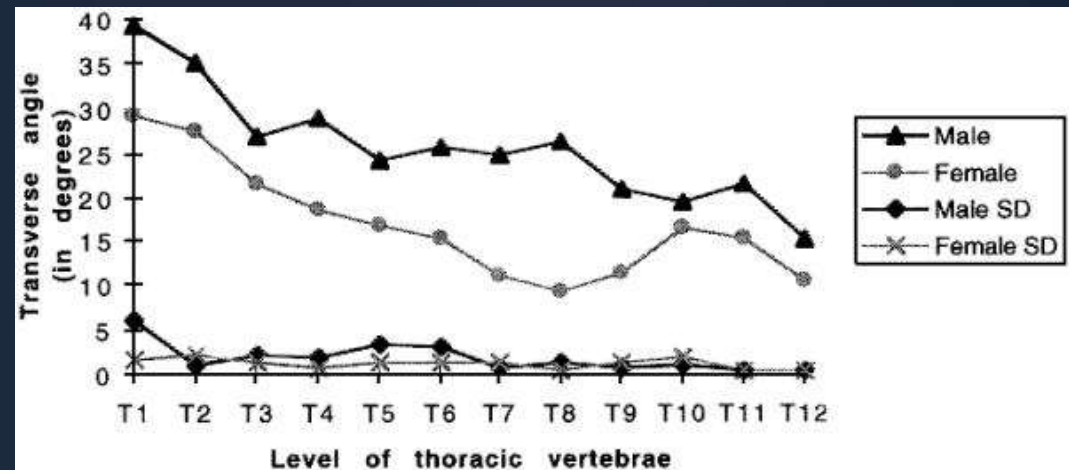
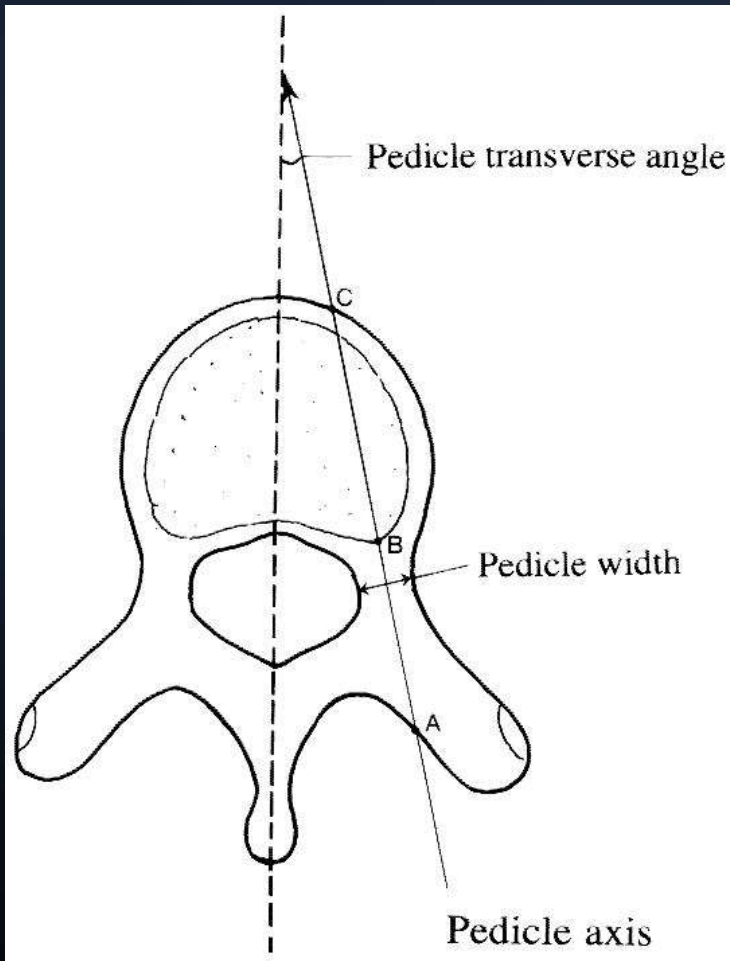


TRAJECTORY SAGITTAL



- AN – LARGER CHANNEL HARMS/POLLY
- SF – BIOMECHANICALLY SUPERIOR, MAY USE MONOAXIAL SCREWS ROY-CAMILLE/LENKE/SUK

TRAJECTORY AXIAL

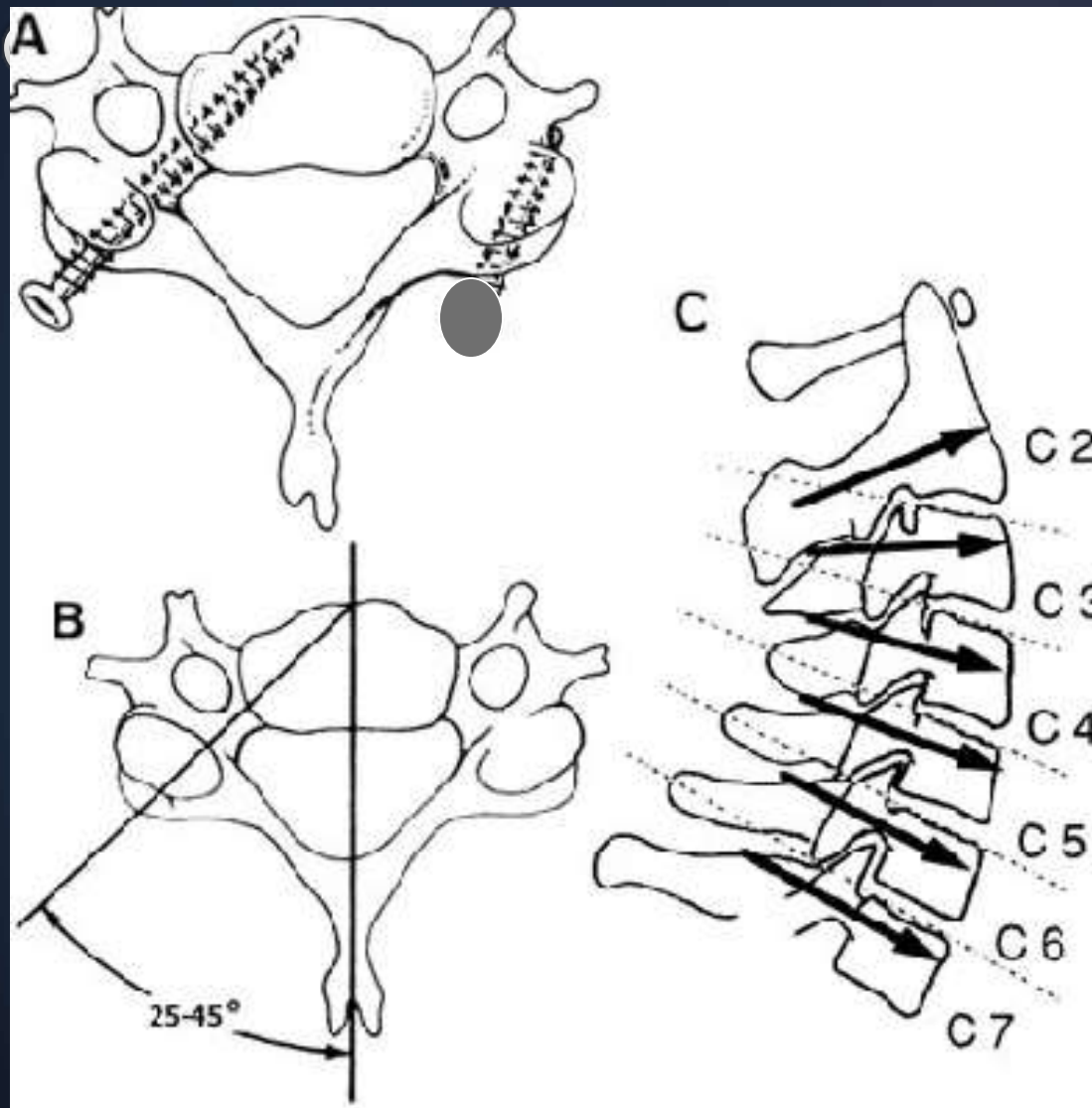


Projection of the Thoracic Pedicle and Its Morphometric Analysis.

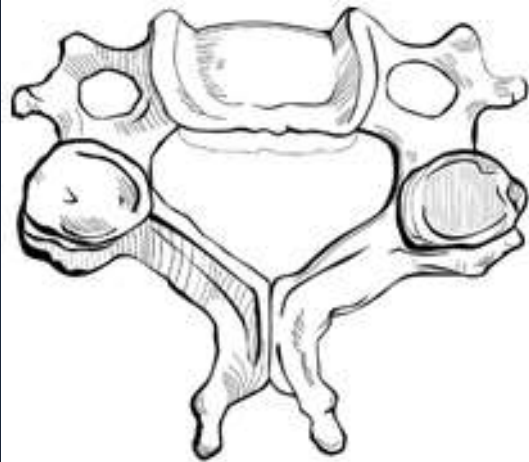
Ebraheim, Nabil; Xu, Rongming; Ahmad, Muhammad; Yeasting, Richard

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CERVICAL



LATERAL MASS ANATOMY



Axial view



Sagittal view



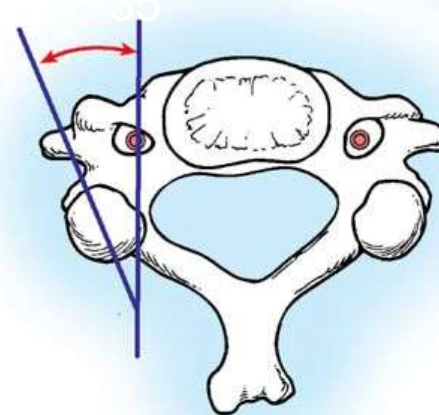
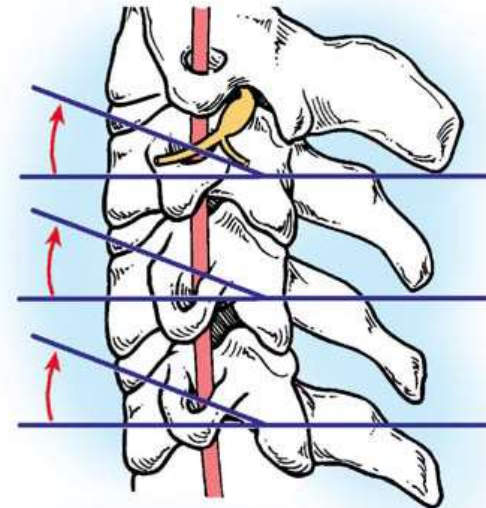
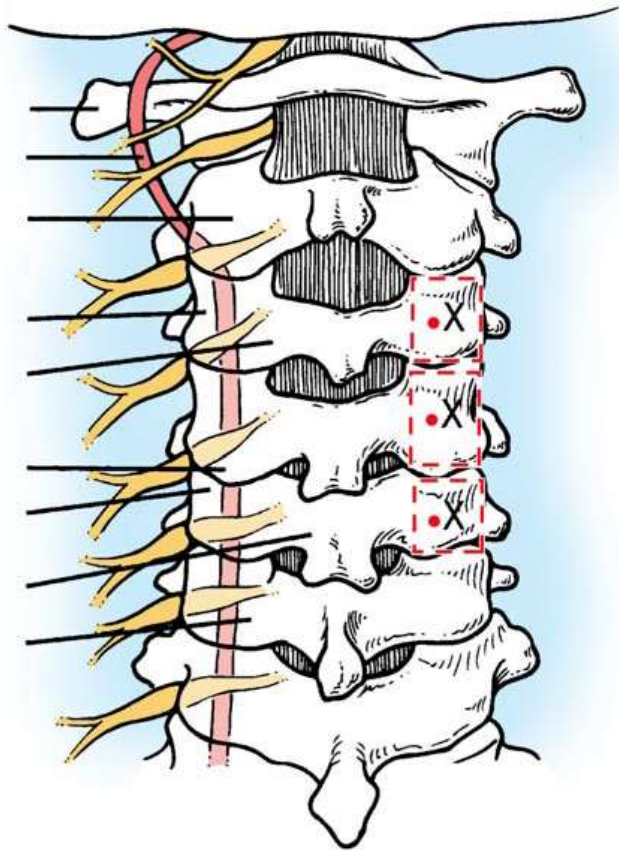
Magerl Technique



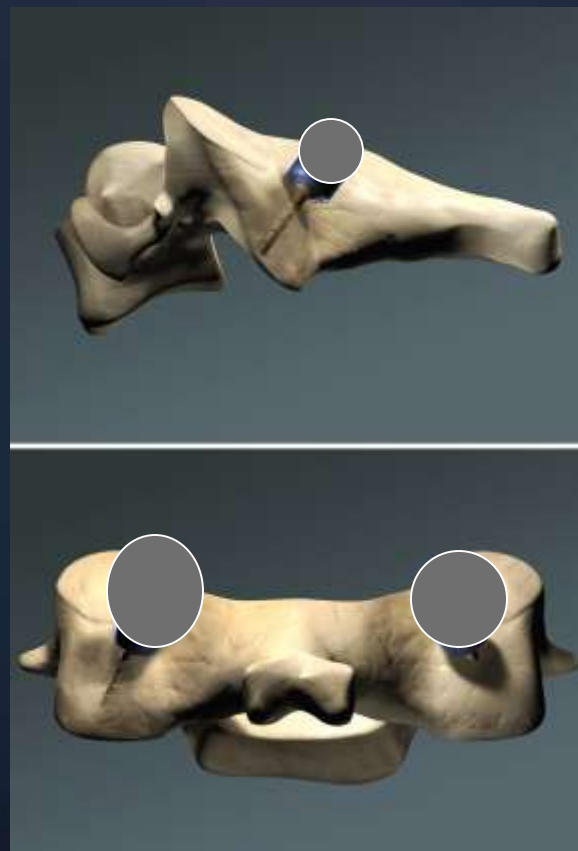
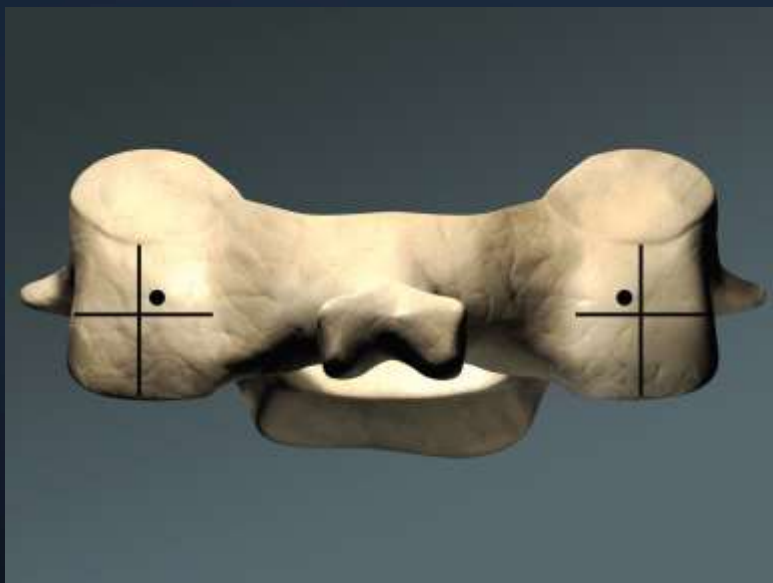
Roy-Camille Technique



LATERAL MASS ANATOMY

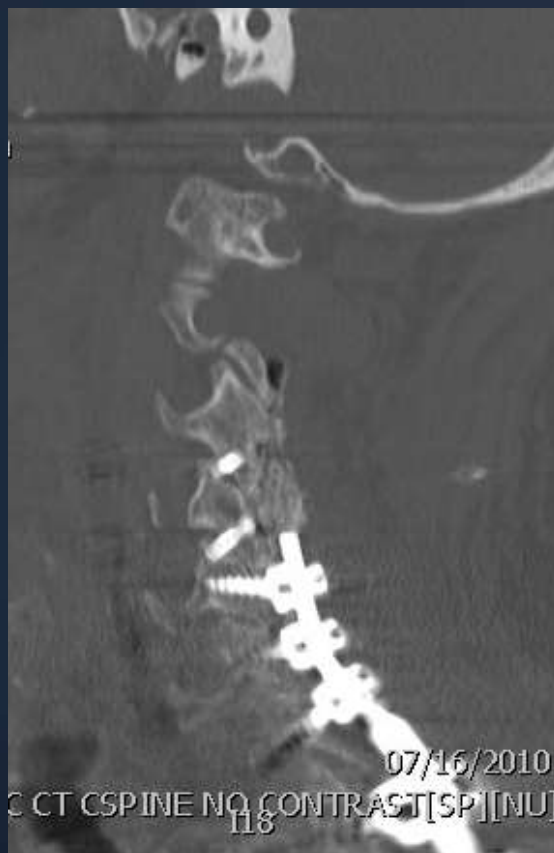


TRANSFACET ANATOMY



J Neurosurg Spine 9:200–206, 2008

TRANSFACET FIXATION



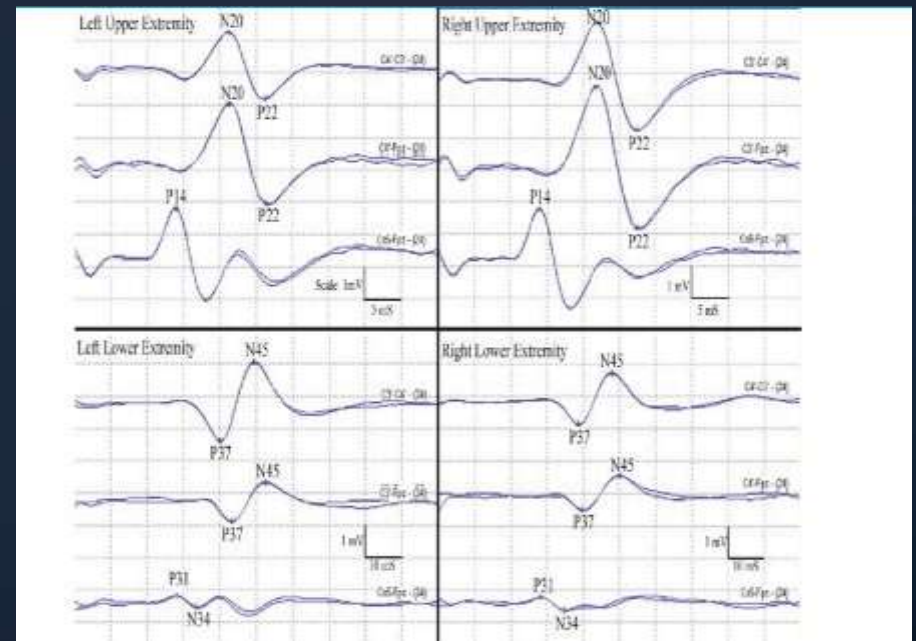
PJK



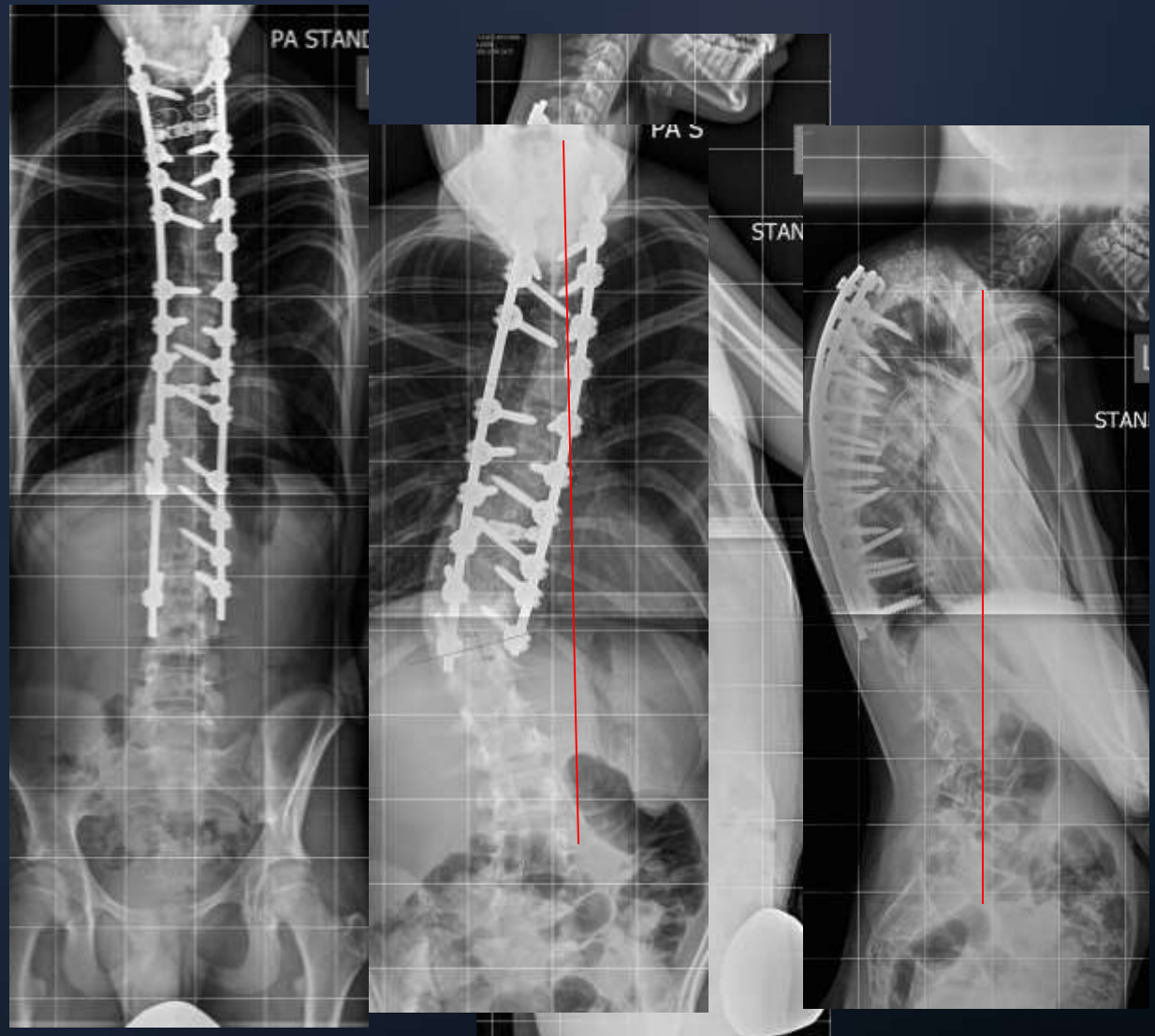
TRACTION & POSITIONING



NEUROMONITORING



PJK



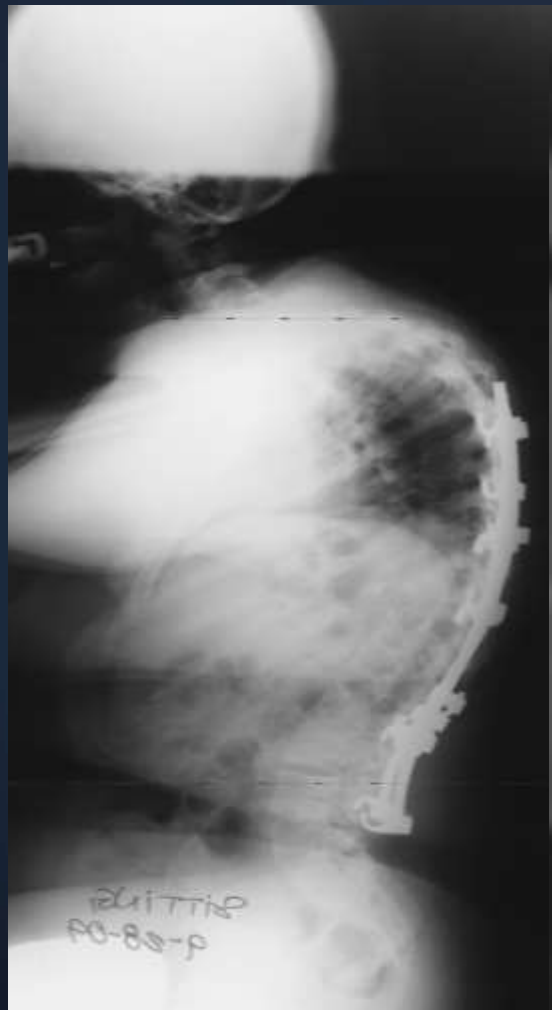
PJK



COMPLICATION



COMPLICATION-HW DISLODGE



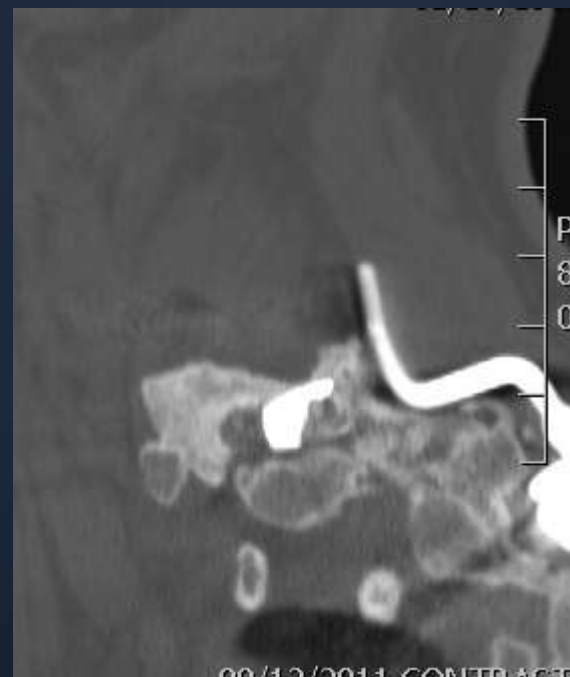
HW DISLODGE



HW DISLODGE



HW DISLODGMT



RESPIRATORY DISTRESS



RESPIRATORY DISTRESS

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■ Perioperative Complications of Combined Anterior and Posterior Cervical Decompression and Fusion Crossing the Cervico-Thoracic Junction

Robert A. Hart, MD, Robert L. Tatsumi, MD, Jayme R. Hiratzka, MD, and Jung U. Yoo, MD

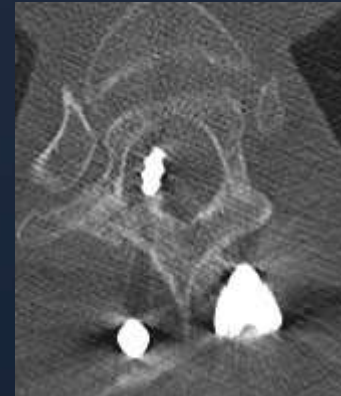
Table 2. Major Complications

PEG tube	15% (2/13)
Vocal cord paralysis	7% (1/13)
Iliac crest infection	7% (1/13)
Post-op MI	7% (1/13)
Graft dislodgment	0%
Non-union	0%

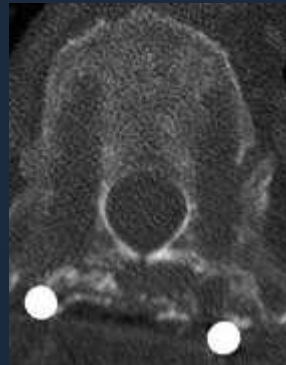
Table 3. Minor Complications

Dysphagia	46% (6/13)
Re-intubation	38% (5/13)
Post-op delirium	7% (1/13)
Pneumonia	7% (1/13)
Halo dislodgement	7% (1/13)
Dural tear	7% (1/13)
Wound dehiscence	7% (1/13)

MALPOSITIONED SCREW



PSEUDO



THANK YOU

