

Ponte osteotomy during dekyphosis for indirect posterior decompression with ossification of posterior longitudinal ligament of the thoracic spine

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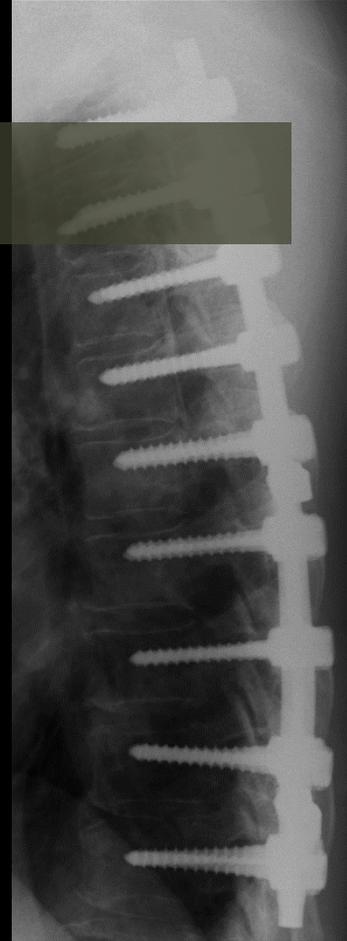
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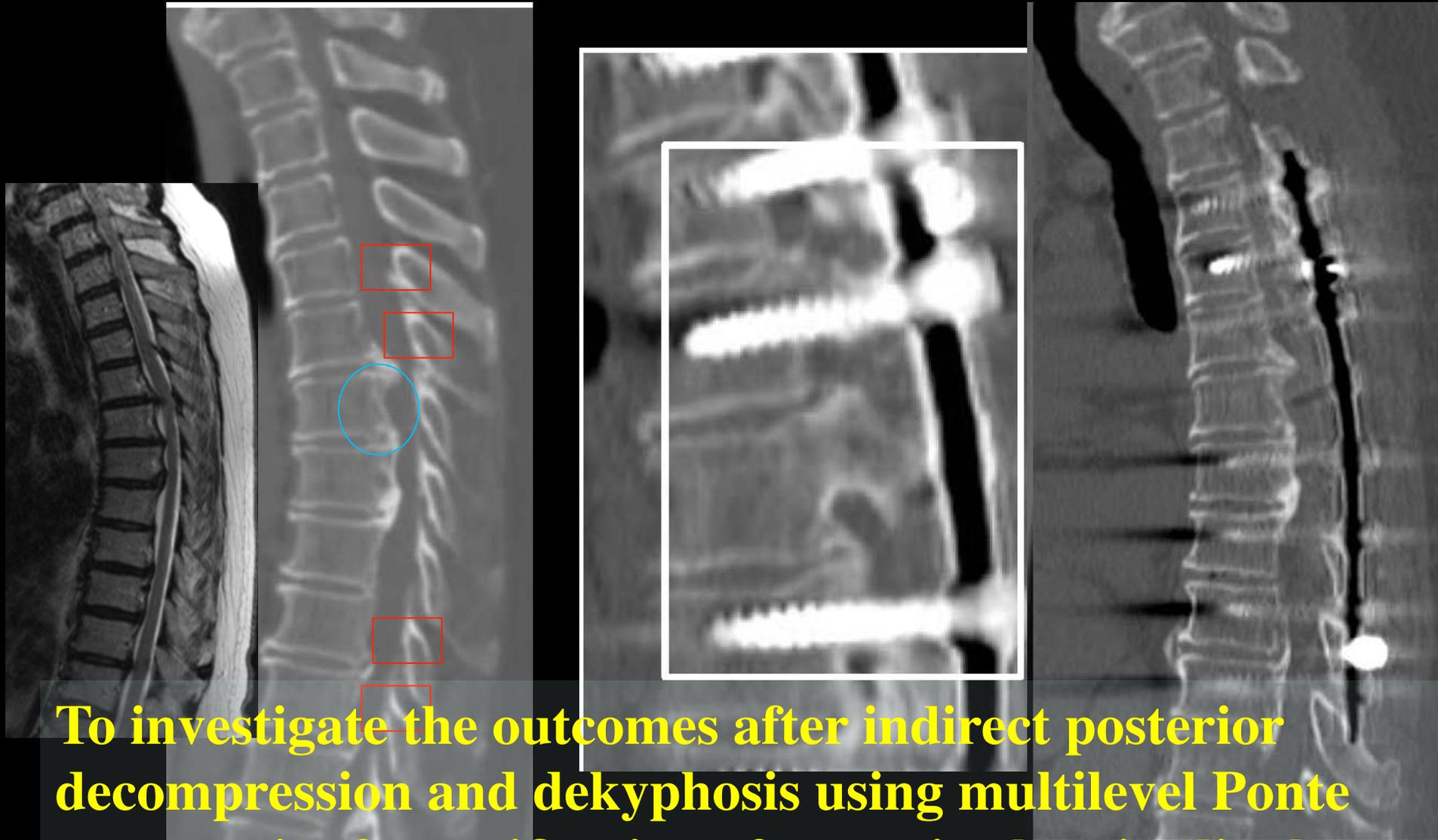
Thoracic OPLL

Fusion surgery with instrument

Indirect spinal cord decompression,
wide laminoplasty decompression and
dekyphosis with instrumentation via a
posterior approach



Purpose



To investigate the outcomes after indirect posterior decompression and dekyphosis using multilevel Ponte osteotomies for ossification of posterior longitudinal ligament of the thoracic spine.

Materials

2010~2012 T-0PLL

10例

Male: 5, female: 5

Ave. 47 yo (18-63)

Follow-up: Ave. 1y 6mo

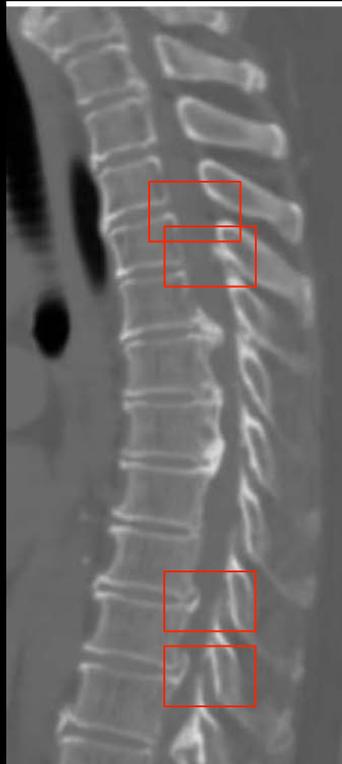
BMI 34

Methods

- Pre- and postoperative Cobb angles of thoracic fusion levels
- Intraoperative ultrasonography
- Clinical results

Levels of Ponte Osteotomy

7



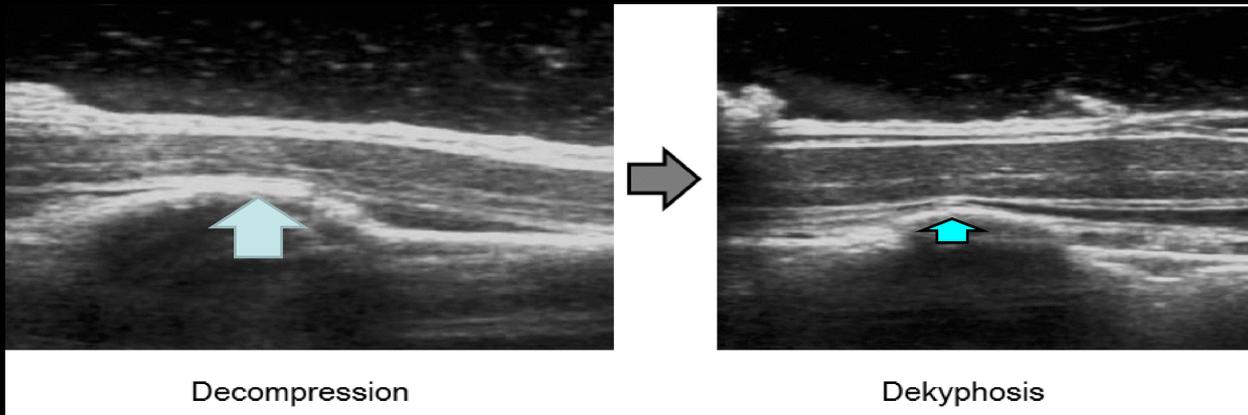
**Both rostrally and caudally
to the OPLL level**

3



**Just the caudal side
or the rostral side**

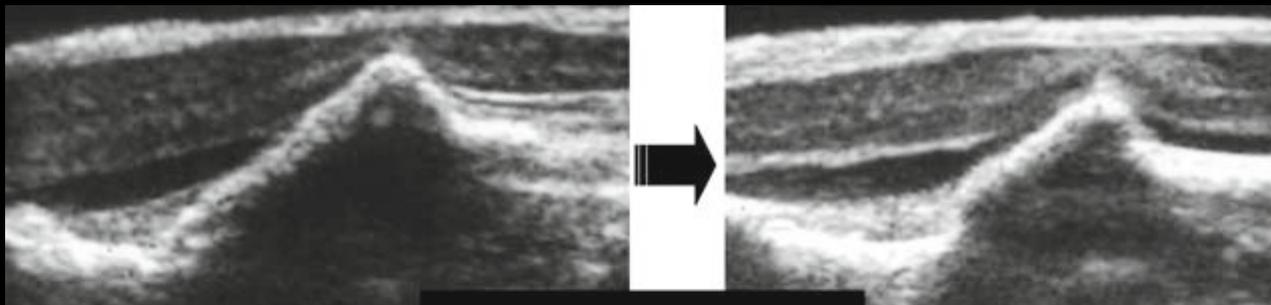
Intraoperative ultrasonography



浮上+ 7/10 (70%)

12/20 (60%)

~2006

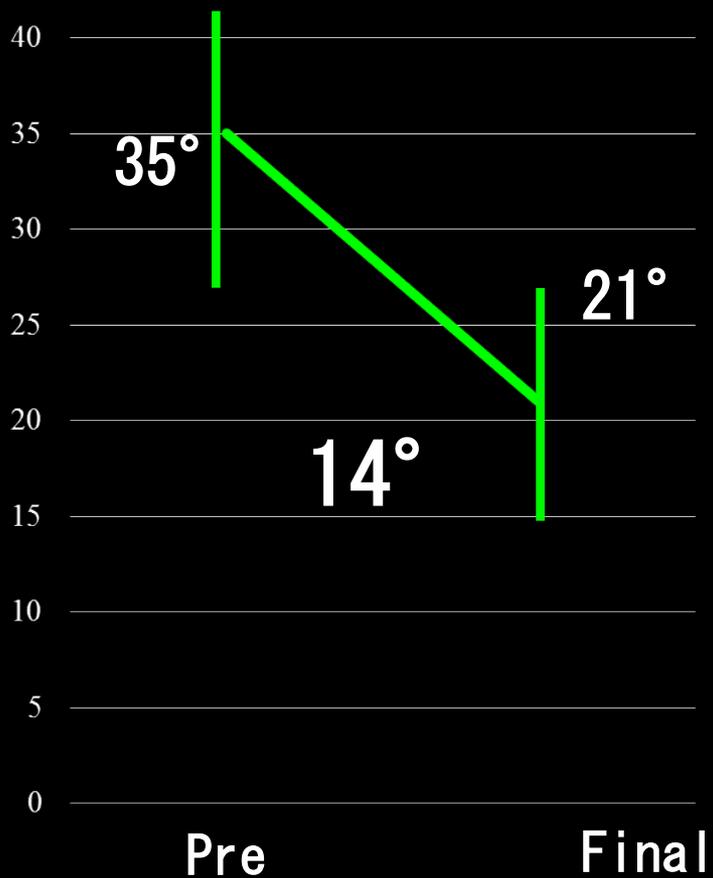


浮上- 3/10 (30%)

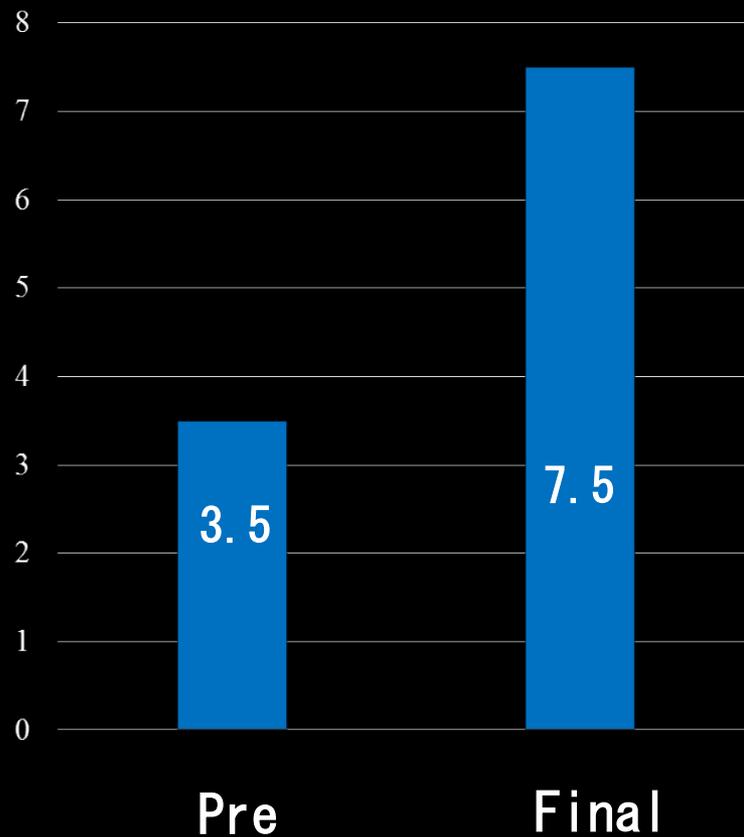
8/20 (40%)

~2006

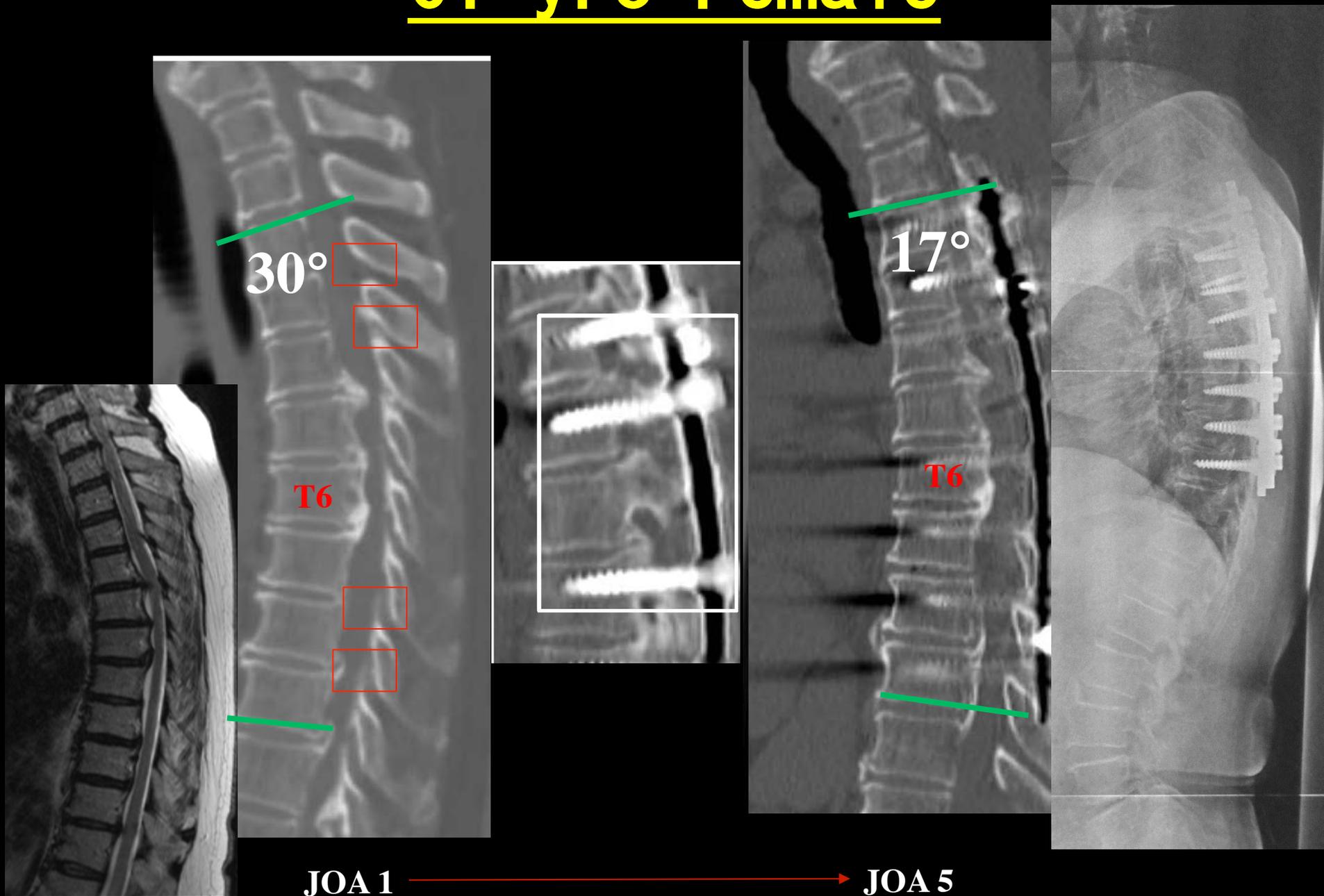
Thoracic kyphosis of fusion levels



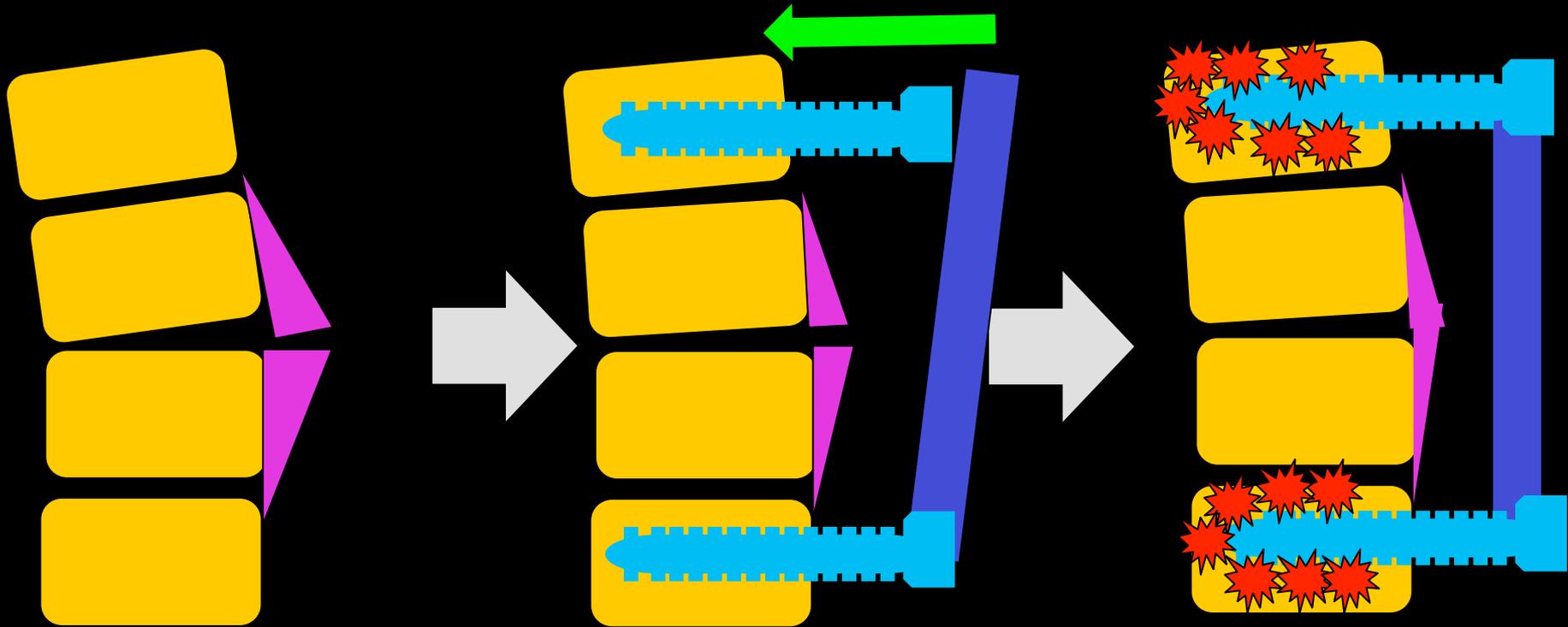
JOA score



61 y. o Female

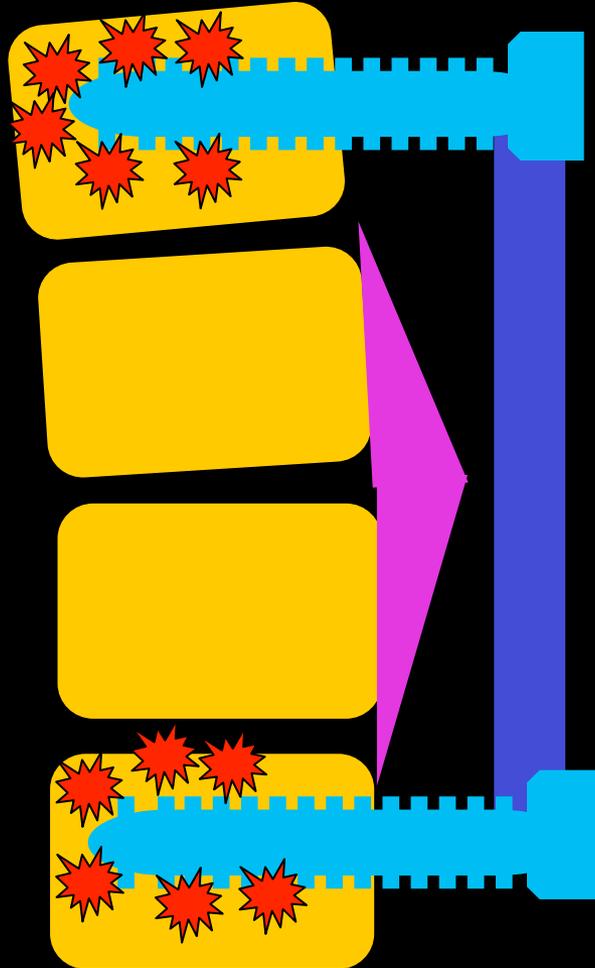


Dekyphosis with instrumentation for thoracic OPLL



We have corrected the kyphosis seen with thoracic OPLL using only the cantilever technique. However, this technique puts a significant load on the pedicle screws.

The effect of Ponte Osteotomy



We incorporated the Ponte procedure to correct the kyphosis without causing significant screw loads. As a result, correction angle on radiograph with this procedure averaged 14°.

Conclusion

‘The Ponte procedure for indirect spinal cord decompression’ is a novel concept used for the first time with thoracic OPLL in our study, and we consider it a useful method to achieve more effectively dekyphosis and indirect spinal cord decompression if there is not the spinal cord free from OPLL on intraoperative ultrasonography after only laminectomies.

None of the authors has any potential conflict of interest