

学位論文審査結果の要旨

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<p style="text-align: center;">(学位論文審査結果の要旨)</p> <p style="text-align: center;">An alternative method to evaluate lumbar interbody fusion status focusing on position change of screw-rod constructs</p> <p>【主論文審査結果の要旨】</p> <p>著者らは論文において下記の内容を述べている。</p> <p>Objectives: The evaluation of lumbar interbody fusion status is generally subjective and may differ among raters. The authors examined whether the assessment of position change of screw-rod constructs could be an alternative method for the evaluation of fusion status. Methods: Sixty-three patients undergoing lumbar interbody single-level fusion were retrospectively reviewed. Three-dimensional images of screw-rod constructs were created from baseline CT examination on the day after surgery and follow-up CT examinations (3-5 months, 6-11 months, and ≥ 12 months) and superposed, with position change of screw-rod constructs being evaluated by the distance between the 3-dimensional images at baseline and follow-up. The evaluation was repeated twice to confirm the reproducibility. Fusion status on follow-up CT examinations was assessed by three raters, where inter-rater reliability was evaluated with Fleiss' kappa. The results of the fusion status were classified into fusion and incomplete fusion groups in each timing of follow-up CT examinations, where the amount of position change was compared between the two groups.</p> <p>Results: The evaluation of position change was completely reproducible. The Fleiss' kappa (agreements) was 0.481 (69.4%). The medians of the amount of position change in fusion and incomplete fusion groups were 0.134 mm and</p>			

0.158 mm at 3-5 months ($p = 0.21$), 0.160 mm and 0.190 mm at 6-11 months ($p = 0.02$), and 0.156 mm and 0.314 mm at ≥ 12 months ($p = 0.004$).

Conclusions: The assessment of position change of screw-rod constructs at 6 months or more after surgery can be an alternative method for evaluating lumbar interbody fusion status.

スクリュー・ロッド構造物の位置変化により骨癒合の判定が可能であることを示した論文であり、学術上極めて有益であり、学位論文として価値あるものと認めた。

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