Accepted Manuscript

Title: Temporary short-segment pedicle screw fixation for thoracolumbar burst fractures. -comparative study with or without vertebroplasty-

Author: Hiroyuki Aono, Keisuke Ishii, Hidekazu Tobimatsu, Yukitaka Nagamoto, Shota Takenaka, Masayuki Furuya, Horii Chialki, Motoki Iwasaki

PII: S1529-9430(17)30130-4
DOI: http://dx.doi.org/doi: 10.1016/j.spinee.2017.03.022
Reference: SPINEE 57276

To appear in: *The Spine Journal*

Received date: 8-11-2016
Revised date: 22-3-2017
Accepted date: 29-3-2017

Please cite this article as: Hiroyuki Aono, Keisuke Ishii, Hidekazu Tobimatsu, Yukitaka Nagamoto, Shota Takenaka, Masayuki Furuya, Horii Chialki, Motoki Iwasaki, Temporary short-segment pedicle screw fixation for thoracolumbar burst fractures. -comparative study with or without vertebroplasty-, *The Spine Journal* (2017), http://dx.doi.org/doi: 10.1016/j.spinee.2017.03.022.

Temporary short-segment pedicle screw fixation for thoracolumbar burst fractures. -comparative study with or without vertebroplasty-

Hiroyuki Aono M.D.,Ph.D.[1], Keisuke Ishii M.D.[2], Hidekazu Tobimatsu,M.D.[3], Yukitaka Nagamoto M.D.,Ph.D.[1], Shota Takenaka M.D.,Ph.D.[4], Masayuki Furuya M.D.,Ph.D.[1], Horii Chialki M.D.[5], Motoki Iwasaki M.D.,Ph.D.[6]

1. National Hospital Organization, Osaka National Hospital, Osaka Japan
2. Teikyo University Trauma Center, Tokyo Japan
3. Ikeda City Hospital, Osaka Japan
4. Osaka University Graduate School of Medicine, Osaka Japan
5. Saitama Red Cross Hospital, Saitama Japan
6. Osaka Rosai Hospital, Osaka Japan

Address Correspondence to:
Hiroyuki Aono, Department of Orthopedic Surgery, National Hospital Organization, Osaka National Hospital, 2-1-14 Hoenzaka, Chuo-ku, Osaka, Japan 540-0006
Tel: 81-6-6942-1331
Fax: 81-6-6943-3555
e-mail: h-aono@umin.ac.jp

Abstract

BACKGROUND CONTEXT: Short-segment posterior spinal instrumentation for thoracolumbar burst fracture provides superior correction of kyphosis by an indirect reduction technique, but it has a high failure rate.

PURPOSE: The purpose of the study we report here was to compare outcomes for temporary short-segment pedicle screw fixation with vertebroplasty and for such fixation without vertebroplasty