

Percutaneous Balloon Kyphoplasty for the compression Vertebral fractures: one year outcome in height restoration and correction/ improvement of Kyphosis

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Abstract

Objective

The objective of the study is to look for the effectiveness of percutaneous balloon kyphoplasty in the restoration of Vertebral body height and correction or improvement of kyphosis.

Design- Retrospective study.

Subjects- Patients with Vertebral column wedge compression fracture.

Methods

A retrospective analysis of 112 patients presented over 4 years and 4 months with 200 symptomatic wedge vertebral compression fractures treated by Percutaneous balloon Kyphoplasty. To assess degree of kyphosis and height restoration of fractured vertebral body, we reviewed digital radiographs and measured pre and post Cobb and wedge angle for kyphosis; Ratios of the height of the anterior border, centre, and posterior borders of the collapsed vertebra to the height at the posterior border of an adjacent normal vertebral body were measured in immediate post-operative period and next follow up and also calculated gain of height in anterior, middle and posterior part of Vertebral body, percentage of lost height restoration.

Results

The height of vertebral body height increases after kyphoplasty. The anterior body height improved 10% in first post-operative and subsequently 14% in next follow up. Middle and posterior heights also revealed 13%, 17% and 9%, 11% improvement respectively. The restoration percentage for the lost vertebral height were 34% for anterior border in the first Post operative period, 49% in the next out patient follow up; 46% and 60% for middle border, and 62%, 76% for posterior border of vertebral height. The mean reduction in kyphotic angle was 3.1 degree, and 2.4 degree in wedge angle, restoration percentages for the kyphosis angle and wedge angle were 11.3% and 18.7%, respectively.

Conclusions:

Kyphoplasty result in improvement of height of vertebral body and angular deformity.



Biography:

Mr Nath is a neurosurgery consultant at James Cook University Hospital in Middlesbrough, with a special interest in acoustic neuroma, skull base and vascular surgery, trigeminal neuralgia and cervical disc replacement. Summary of training: Mb ChB Liverpool 1974, FRCS Edinburgh 180, Ghorka Dakshin Bahu (King of Nepal's Birthday Honours list 2002), FRCS England ad eundem 2008, Royal College of Surgeons: Interview Representative, Regional Adviser in Neurosurgery Intercollegiate Neurosurgical Examiner

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