

SHORT TERM FOLLOW UP OF PATIENTS WITH OSTEOPOROTIC
VERTEBRAL COMPRESSION FRACTURES TREATED WITH
PERCUTANEOUS VERTEBROPLASTY

Abstract: In this study the mean age of 64 years with youngest case of age of 55 years and oldest case. 55 % of patients included in the study are female. One case had systemic hypertension, one case had Parkinsonism, and one case had Coronary Artery Disease. A significant reduction in analgesic intake was revealed. The patients without any analgesics increased from 0.5% (n=2) pre operative to 85.7% (n=30) at the six months follow-up (P less than 0.0001). pain score of ODS for immediate, 1 month, 2 month, 3rd month and 6 month and found that pam 1s reduced after immediate to 1 month till 6 month (p<0.05), and after 3rd month to 6 month no difference in pam score.

Keywords: Coronary heart diseases, analgesics

Introduction:

Osteoporosis is reported to highly predominant in India. Female are mostly affected and almost 60% of women population are reported to have this disorder. On average 45 lakhs Indian females above 60yrs of age have had a fractured spine compared to osteoporotic hip fractures which accounts every year for around 2.5 lakhs cases [1-4]. The regular treatment of compression fractures includes life style modifications, analgesics, bracing and supplementary osteoporosis reversing interventions. To

evaluate and analyze the short term functional outcome of Vertebroplasty in the management of stable osteoporotic wedge compression fractures of both lumbar and thoracic vertebrae.

Methodology:

Patients with thoracic and lumbar vertebrae osteoporotic fracture were included in the study. Patients were investigated with Chest X-Ray, ECG, CBC, RFT, Random Blood Sugar, and Blood grouping and typing, which were required to get anesthetic fitness for the procedure. Other investigations like Serum Calcium, LFT, ALP, Acid phosphatase, Urine Bence Jones Protein were done to evaluate the cause of fractures. After radiological examination procedure was performed the patient was prepared in the ward in the morning on the day of surgery .

A Radiolucent and image intensifier compatible operating table was used. An indwelling Foley's catheter was maintained during surgery. The patient was positioned prone; the area to be operated was visualized under C arm image intensifier. C arm was arranged such that Anteroposterior, lateral and oblique view could be taken if required during the procedure. Using marker pen, level of the fracture was marked under C- arm control. Area to be operated was painted using povidone Iodine and draped After general anaesthesia , 20ml of lignocaine with adrenaline was infiltrated over the proposed site of operation. Under image intensifier we located the pedicle percutaneously, a small incision was made lateral and superior to the cutaneous pedicle location which allowed proper convergence through the tissues to the proposed pedicle entry point. Using Vertebroplasty Cook's needle of size 11

gauge 115cm entry point was made at 10' o clock position on the lateral border of pedicle and switched c-arm to the lateral view to verify trajectory of needle & position. Through transpedicular approach needle was placed into the body at the junction of posterior two-third & anterior one-third of vertebral body which was confirmed in the lateral view.

Fig:1 C-Arm Image Showing The Trajectory Of Needle & Position In Anterior Posterior And Lateral View



Results and Discussion:

In our study we had mean age of 64 years with youngest case of age of 55 years and oldest case of age 80 years. 4 cases had associated co morbid conditions out of which one had Diabetes Mellitus, one case had systemic hypertension, one case had Parkinsonism, and one case had Coronary Artery Disease. For the evaluation of the segmental kyphosis (in terms of vertebral height) and alignment, 20 patient's x-rays

were radiologically assessed. Repeated measure analysis used to find statistical difference significance of pain score of ODS for immediate, 1 month, 2 month, 3rd month and 6 month and found that pain is reduced after immediate to 1 month till 6 month ($p < 0.05$), and after 3rd month to 6 month no difference in mean pain score. We don't have much improvement in the Beck index. Whereas Balloon Kyphoplasty has shown the ability to restore and increase in vertebral body height and Becks which improves the alignment

COMPETING INTERESTS DISCLAIMER:

Authors have declared that no competing interests exist. The products used for this research are commonly and predominantly used products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

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