

Anterior Cervical Discectomy And Fusion With Bone Cement: A Technology In Developing Country

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Purpose

We have designed retrospective and analytical case study to test whether bone cement fixation of vertebral bodies after cervical discectomy is safe or not. This study included patients with degenerative and traumatic disc herniation with sign of radiculopathy or myelopathy.

Methods

72 cases of anterior cervical discectomy with fusion (ACDF) were included out of which 56 cases were fixed with bone cement (Methyl methacrylate), 8 with bone graft and 4 with titanium cage. Follow up period was 1 to 8 years, clinical improvement was assessed by sign and symptoms, and bone cement was assessed by the dynamic cervical x-ray. Advantages of bone cement over bone graft and titanium cage is discussed in this study.

Results

Of 68 cases, one case developed central cord syndrome after surgery. Two cases needed surgery from both anterior and posterior approach. Three cases had residual symptoms of myelopathy. Vocal cord paresis observed in one case. Intraoperative CSF leak was noticed in 3 cases which were managed promptly. There was not a single case of post-operative bone cement subluxation or herniation.

Conclusion

ACDF with bone cement fixation is an appropriate technology for a developing country like Nepal. It is very cheap as compared to titanium cage or artificial disc. Final outcome is equally good as other techniques. Early mobilization of patient can be done and hospital-stay significantly short.