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| **Title:**Is arthroplasty a better alternative to anterior spinal discectomy and fusion in patients suffered from cervical spinal degenerative disease?**Authors:** CHEUNG ling kit1, CHAN Ngo Lun Allan2, LAW Hing Yuen1 , PO Yin Chung2, YAM Kwong Yui1**Institution(s):**1Department of Neurosurgery, Tuen Mun Hospital, Hong Kong.2Department of Neurosurgery, Princess Margaret Hospital, Hong Kong.**Abstract:** ***Objective*:**To investigate the operative outcome between arthroplasty and anterior spinal discectomy(ACDF) and fusion in patients suffered from cervical spinal degenerative disease***Method:***This was a ten years retrospective review of all the patients suffered from cervical spinal degenerative disease who received either arthroplasty or anterior spinal discectomy and fusion in two tertiary hospitals. Operative outcome including duration of surgery, blood loss, hospital length of stay, post-operative pain control and neurological improvement in terms of Japanese Orthopaedic Association (JOA) Score, neck disability score and 36-item short form survey (SF-36) will be reviewed. ***Result:***A total of 48 patients were recruited in this study, 30 cases with ACDF done, 11 cases with arthroplasty done and the remaining cases have both procedures done. Patients received arthroplasty had lower incidence of adjacent segment disease compared with those received ACDF. They had similar rate of operative complication, neurological improvement and pain control after the surgery. There was no statistical significance between two groups in terms of the operative time and blood loss as well.***Conclusion:***Arthroplsaty is non-inferior to ACDF and should be considered in younger patients suffering from cervical degenerative disease in order to preserve range of movement and prevent adjacent segment disease. |

(198 words)