SCIENTIFIC PAPER

Kurokawa-type Laminoplasty using Hydroxyapatite Spacer for Cervical Myelopathy

Cheng HO, Cheung KK, Chan PH

Department of Orthopaedics and Traumatology, Tuen Mun Hospital, Tuen Mun, Hong Kong

ABSTRACT

Objective: A retrospective study was performed to examine the value of a hydroxyapatite spacer for the Hong Kong population.

Patients and Methods: From August 1999 to August 2003, twenty nine patients with cervical myelopathy underwent Kurokawa-type spinous process splitting laminoplasty with the enlarged spinal canal maintained by trapezoidal-shaped hydroxyapatite spacers.

Results: There was no permanent neurological deterioration or major complication attributable to the surgical procedure. The mean recovery ratio of Hirabayashi was 51.1% and the mean improvement in Pavlov ratio of the operated levels was 49.1%. No displacement of the spacers was noted during the mean follow-up period of 25.9 months. Good to excellent bone-spacer contact was noted in 47% of interfaces on follow-up computed tomography studies.

Conclusion: The hydroxyapatite spacer is a safe and effective alternative to the autologous bone graft in maintaining the expansion of the spinal canal in Kurokawa-type laminoplasty of the cervical spine.

Key Words: Hydroxyapatite, Myelopathy, Spacer, Spinal process

中文摘要

為頸脊髓病患者進行黑川類椎板成型術及使用氫磷灰石製間隔物的早期結果報告

鄭鴻安、張嘉健、陳百浩

由1999年8月至2003年8月期間，共有29名頸脊髒病患者接受了黑川類型椎板成型術。術中應用梯型的氫磷灰石製間隔物為擴大椎管之用，術後無永久神經受損或其他嚴重併發症出現。術後平均改善比率為51.1%，巴伐洛比率平均改善了49.1%。在平均為25.9月的隨訪中沒有間隔物移位的記錄。跟進電腦X光顯示47%的骨骼與間隔物表面有良好的癒合。氫磷灰石間隔物可以安全及有效地替代自體植骨於黑川類型椎板成型術中維持已擴大的椎管。