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To date, no reports have presented radiculopathy secondary to heterotopic ossification following lumbar total disc arthroplasty. Jackson et al. present a previously unpublished complication of lumbar total disc arthroplasty (TDA) secondary to heterotopic ossification (HO) in the spinal canal, and they propose a modification to the McAfee classification of HO. The patient had undergone an L5/S1 lumbar TDA two years prior due to discogenic back pain. His preoperative back pain was significantly relieved, but he developed new, atraumatic onset radiculopathy. Radiographs and a computed tomography myelogram revealed an implant malposition posteriorly with heterotopic bone formation in the canal, causing an impingement of the traversing nerve root. Revision surgery was performed with implant extraction, L5/S1 anterior lumbar interbody fusion, supplemental posterior decompression, and pedicle screw fixation. The patient tolerated the procedure well, with complete resolution of the radicular leg pain. At a two-year follow up, the patient had a solid fusion without subsidence or recurrence of heterotopic bone. This case represents a novel pattern of heterotopic ossification, and it describes a previously unreported cause for implant failure in lumbar disc replacement surgery-reinforcing the importance of proper intraoperative component positioning. We propose a modification to the existing McAfee classification of HO after TDA with the addition of Class V and VI HO ¹⁾.

A 37-year-old man with clinical signs of [myelopathy](#) almost 9 years after implantation of a Bryan disc prosthesis (Medtronic Sofamor Danek, Memphis, TN, USA) for C5/C6 soft disc herniation. As demonstrated on MRI and CT scan, spinal cord compression was caused by bony spurs due to heterotopic ossification posterior to the still moving prosthesis. The device, as well as the ectopic bone deposits, had to be removed because of myelopathy and its imminent aggravation. Conversion to anterior spondylodesis was performed ²⁾.

¹⁾

Jackson KL, Hire JM, Jacobs JM, Key CC, DeVine JG. Heterotopic Ossification Causing Radiculopathy after Lumbar Total Disc Arthroplasty. Asian Spine J. 2015 Jun;9(3):456-60. doi: 10.4184/asj.2015.9.3.456. Epub 2015 Jun 8. PubMed PMID: 26097664; PubMed Central PMCID: PMC4472597.

²⁾

Wenger M, Markwalder TM. Heterotopic ossification associated with myelopathy following cervical disc prosthesis implantation. J Clin Neurosci. 2015 Nov 26. pii: S0967-5868(15)00549-4. doi: 10.1016/j.jocn.2015.09.016. [Epub ahead of print] PubMed PMID: 26633091.

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