

Evidence Discussion (CMM-605: Cervical microdiscectomy)

Risks of posterior cervical microdiscectomy surgery include but are not limited to infection, hematoma, persistent or incomplete relief of symptoms, post-operative instability or kyphosis, disk degeneration, possible need for additional surgery including fusion, dural tear, stroke, bleeding, vertebral artery injury, nerve root injury, spinal cord injury, paralysis and death[1,2]. Some of these complications can be devastating and lead to poor outcome. Indications for surgery include patients with radiculopathy and/or myelopathy. Given the potential possibility for significant complications, proper patient selection is critical to minimize the risk benefit ratio. As recommended by the North American Spine Society (NASS) Coverage Policy Recommendations, history, symptoms, physical exam findings and imaging findings should support cervical microdiscectomy [3]. Subjective symptoms and examination findings need to be concordant with imaging as is not uncommon for asymptomatic patients to have abnormalities on MRI. [4-6].

Multiple studies have shown that the vast majority of patients with cervical radiculopathy will improve with a 4-6 week course of non-operative treatment. [7-9]. Initial non-operative management is also noted as a recommendation in the North American Spine Society (NASS) Coverage Policy Recommendations [3]. However, for patients with myelopathy or other urgent/emergent conditions (e.g. progressive neurologic deficit), a trial of non-operative treatment would not be necessary.

Contraindications to cervical microdiscectomy as noted in the North American Spine Society (NASS) Coverage Policy Recommendations include treatment of discogenic axial neck pain without neurological symptoms and asymptomatic spinal stenosis without MRI evidence of intrinsic spinal cord signal change[3].

Jackson et al. noted higher rates of postoperative complications and worse functional outcomes in patients with psychological disorders undergoing spinal surgery [10]. It was concluded that proper identification and treatment of these conditions prior to surgery may significantly improve many outcome measures in this population.

References

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