Can the Part of the Abducens Nerve Encased in the Tumor be Reconstructed Entirely by Diffusion Tensor Imaging?

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To the Editor;

We read with great interest the article by Ma et al. entitled “Preoperative visualization of cranial nerves in skull base tumor surgery using diffusion tensor imaging technology” (1). In this article, they used diffusion tensor imaging (DTI) which is a feasible method to track the pathway of cranial nerves (CNs), including the abducens nerve. As reported in their article, the cisternal parts of the abducens nerve were imaged well in 8 vestibular schwannomas and 3 petroclival meningioma cases. The author showed pictures of case 4 in which we can only visualize the abducens nerve compressed to the posteromedial surface and ascending clinging to brainstem, but we cannot visualize the other parts of the cisternal portions of the abducens nerve. Extrapolating the whole running course of the cisternal portions of the abducens nerve helps neurosurgeons to preserve the nerve in its entirety. We would greatly appreciate Ma et al. if he could explain and provide the pictures showing the entire part of the cisternal portions of the abducens nerve that was compressed variously by the large petroclival meningioma and encased within the large tumor, which is not well reported in the past literature. If they have already reconstructed the cisternal portions of the nerve entirely in such cases, it should be a good deed for neurosurgeons and patients.

REFERENCE