Anatomic relation between the rectus capitis posterior minor muscle and the dura mater.

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STUDY DESIGN. Anatomic study of the suboccipital region, specifically the deep muscles of the suboccipital triangle, was performed in cadaveric specimens. OBJECTIVE. To observe and describe the relationship between the deep suboccipital musculature and the spinal dura. SUMMARY OF BACKGROUND DATA. A review of the literature revealed no reports describing a physical connection between suboccipital musculature and the spinal dura. METHODS. Dissections of the suboccipital region were performed in 10 embalmed and one fresh sagittally hemisected head and neck specimens. RESULTS. A connective tissue bridge between the rectus capitis posterior minor muscle and the dorsal spinal dura at the atlanto-occipital junction was observed in every specimen. The fibers of the connective tissue bridge were oriented primarily perpendicular to the dura. This arrangement of fibers appears to resist movement of the dura toward the spinal cord. CONCLUSIONS. Awareness of the physical relation between the rectus capitis posterior minor muscle and spinal dura via this connective tissue bridge should lessen the potential risk of dural damage during surgery. This connective tissue bridge may help resist dural infolding during head and neck extension.