

PREVALENCE OF CHIARI MALFORMATION, AND CERVICAL STENOSIS, IN FIBROMYALGIA

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Introduction. There has been a recent recognition that the clinical features of fibromyalgia (FM) may overlap significantly with those of Chiari malformation and/or cervical spinal stenosis (CM/CS). The evidence supporting this relationship includes: 1) a large case series published by Milhorat demonstrating the clinical similarities between CM and FM (Neurosurgery 44:1005,1999), 2) the observation of Rosner and others that some patients labeled as having FM have CM/CS and may benefit from decompressive surgery.

Subjects and Methods. This prospective study examined the prevalence of CM/CS in individuals who had been diagnosed with FM. 39 consecutive patients fulfilling ACR criteria for FM at two tertiary care centers served as the FM cohort, and a group of 23 gender-matched asymptomatic individuals served as the control group. All subjects completed symptom questionnaires, had an extensive neurological examination, and underwent a MRI of the posterior fossa and cervical spine. The MRIs were first screened for technical adequacy and were read by two blinded radiologists who evaluated the diameter of the cervical canal and cord at each level from C1- C7, and the level of the cerebellar tonsils relative to the foramen magnum.

Results. 38 FM pts. and 23 controls had adequate studies to evaluate their cervical region for CS. There were no consistent differences between groups in the mean diameter, or in the number of individuals who would be judged to have "stenosis", at any cervical level. Of the subjects who had technically adequate studies of the posterior fossa 8/26 FM and 11/15 controls had evidence of cerebellar tonsils in the foramen magnum. Finally, a neurosurgeon who rated the overall MRI in a blinded fashion judged 47% of FM and 50% of controls as possibly a surgical candidate.

Summary. This study does not support the notion that there is an increased prevalence of CM or CS in individuals with FM. However, this small sample size would not detect a small increase in prevalence of CM or CS in FM, and these findings cannot be extrapolated to other settings where individuals might be labelled as having FM without a careful diagnostic evaluation. Larger studies are necessary to help address this complex issue.

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