

Neurosurgery Abstracts

Title: DOES THE “BENIGN” SACRAL DIMPLE EXIST?

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Background: Previously, a skin dimple overlying the midline coccyx was felt to be “benign” and of no clinical significance. Given that the skin and nervous system originate from the same germ cell layer in the embryo, we recommend that all children with an abnormality overlying their spine, including a “benign sacral dimple”, undergo a spine MRI. This report is a compilation of data obtained on this cohort of patients with midline sacral dimples overlying the coccyx that have undergone spinal MRI.

Method: This study includes 76 patients who presented to Pediatric Neurosurgery clinic from January, 2005 through December, 2007 with a sacral dimple overlying their midline coccyx. The study group consists of 71 patients who underwent a spine MRI. Any child with evidence of a possible spinal cord tethering lesion underwent a manual muscle test (MMT) and urologic evaluation. For those who underwent an untethering procedure, we review the MMT and urologic evaluations.

Results: In the study group, MRI findings included fatty filum (17) , filar cyst (13), small syrinx (5), low lying cord (5) and normal imaging (31). Of the 22 children with fatty filum and low lying conus, 15 have undergone a spinal cord untethering at our institution, 1 had surgery elsewhere, and 3 are being followed clinically. Pre-op cystometrogram (CMG) was abnormal in 11 patients and normal in 3 patients. One patient refused testing. Post-operative CMG was improved in 4 and stable in 3. Four patients have refused post-op testing. Seven of the 15 children were shown to have mild weakness in their lower extremities (LE) MMT, with the remaining children having normal LE strength. Four of the seven children with mild weakness pre-op demonstrated improved strength post-op.

Conclusion: Given the study results, we recommend that all children with any abnormality overlying their spinal midline undergo a screening spine MRI.