

Poster presentation

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## Achondroplasia: should the urinary tract be evaluated in children?

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### Background

Achondroplasia is the most common form of heritable bone dysplasia. Very little is known about the urological manifestations of achondroplasia in the paediatric age group with respect to voiding dysfunction and the need to screen for the same. This aim of this study was to determine whether routine 'screening' of children with achondroplasia for voiding abnormalities was necessary.

### Materials and methods

Twenty-six patients with achondroplasia and a mean age of 14 years (7–18) referred to the orthopaedic clinic for potential limb lengthening surgery underwent a health assessment. An MRI scan was performed in the presence of neurological and/or urological symptoms. Six patients with confirmed spinal stenosis were referred for urological assessment, 4 of which had urological symptoms. Non-invasive urodynamics were carried out in all including bladder pre and post micturition volumes and uroflowmetry.

### Results

All 4 children with urological symptoms demonstrated evidence of voiding dysfunction on non-invasive urodynamic assessment and required further intervention and follow up. The remaining two had no evidence of voiding dysfunction and was discharged from urological care.

### Conclusion

We recommend urological surveillance of all paediatric achondroplastic patients with neurological/urological symptoms and confirmed spinal stenosis on MRI. In this series 15.3% of the cohort had abnormal urological assessments prompting further monitoring. The significance of this finding is unknown due to the small patient cohort and a prospective study of non-invasive urodynamic assessments in all achondroplastic children with MRI evidence of spinal pathology and long-term outcomes is necessary.