

Poster presentation

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pGALS performs well in the hands of a medical student

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Background

pGALS (paediatric Gait, Arms, Legs and Spine) is a paediatric musculoskeletal (pMSK) screening examination validated for use in school-aged children [1], aimed at medical students. It is envisaged that pGALS will improve clinical skills and facilitate access to specialist care. Our aim was to assess the validity of pGALS in student hands and compare it to assessment by a consultant paediatric rheumatologist.

Methods

The student (AR) received standard undergraduate pMSK teaching. pGALS was performed on children attending paediatric rheumatology clinics, with the student blinded to diagnosis and background information. Findings were recorded as "abnormal" or "normal" and compared to a same day examination by a consultant (HF/MF).

Results

The study included 59 children, median age 12 (range 4–17 yrs). 45 (76%) had juvenile idiopathic arthritis. Overall, sensitivity for whether a child was deemed "normal" or "abnormal" was 95%, with specificity 88%. Student pGALS had good sensitivity (60–100%) and specificity (89–100%) at all joints, except for TMJ (sensitivity 0%, specificity 98%). Missed abnormalities were mostly loss of range-of-movement at the foot, ankle and TMJ; however in these children, abnormalities elsewhere were detected. Student median time was 4.25 min (range 2.25–8.5), compared to consultant median of 2 min (range 2–8) [$p = 0.001$]. Pain score median was 0 (range 0–8).

Conclusion

pGALS is quick, acceptable and performs well in determining if the child has a normal MSK examination or not when used by a student. However, interpretation of abnormal versus normal, especially at the foot, ankle and TMJ, need to be addressed in clinical teaching.

References

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