Growth Patterns And Fractures In Boys With Duchenne Muscular Dystrophy: Insights From Over 800 Boys In The UK North Star Cohort

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There is little information on growth and fractures in boys with Duchenne Muscular Dystrophy (DMD).

Objectives
To determine the extent of growth & skeletal morbidity in a contemporary cohort of DMD in the UK.

Methods
Clinical details of 832 boys with DMD in the North Star database during the period of 2006 to 2015 from 23 centres in United Kingdom were analysed following categorisation into five age groups: A:<4.9yrs (n,113), B:5-7.9yrs (384), C:8-10.9yrs (421), D:11-13.9yrs (299) and E:>14yrs (160). The reported fractures were classified into vertebral fractures (VF) and non-vertebral fractures (Non-VF). The results are presented as Median (Range).

Results

- DMD boys are short even before steroid therapy
- Of the 46 Steroid-naïve boys aged <4.9 years, 22% had height SDS <-2.0.

Conclusion
In this largest cohort of boys with DMD to date with growth and fracture data, - Short stature was already evident in 22% of young steroid-naïve boys - VF are present across the age spectrum and the relationship between back pain and VF in this age group requires further exploration.

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Figure 1: Mobility Status

Figure 2: Glucocorticoid Therapy

Figure 3: Height SDS

Figure 4: Probability Of Fracture (Non-VF vs. VF) Vs. Age

Figure 5: Back Pain In Different Age Group

Figure 6: New VF In Different Age Group