The Prevalence of Fractures in Children with Cerebral Palsy in Manchester

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Background

Cerebral Palsy (CP) is the most common physically disabling childhood motor disorder.

Fractures in this group of children are common, however, prevalence and risk factors associated with fractures in children with CP in the UK is not known.

Aims

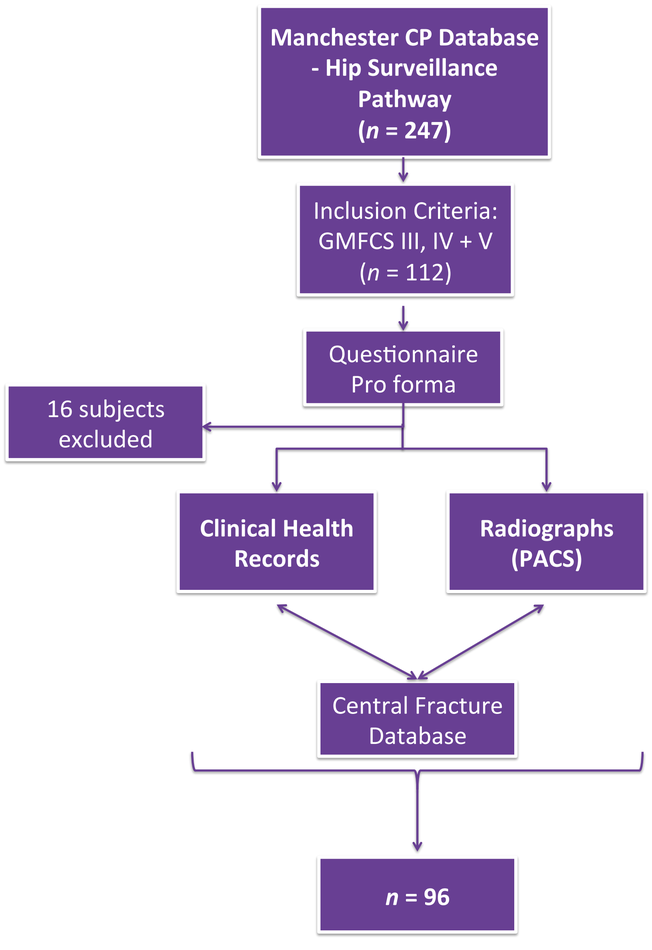
- To determine the prevalence of fractures in children with moderate-severe CP in Manchester.
- To determine the location of fractures sustained.
- To identify any risk factors associated with an increased fracture risk.

Methods

This was a retrospective survey of a cohort of 96 children with CP and Gross Motor Function Classification System (GMFCS) levels III – V.

Data was collected via cross-examination of a Manchester database of children with CP, clinical health records, radiograph imaging and a central database of fractures.

Sex, age, seizures, seizure medications, nutritional status, presence of contractures, hip dislocations and fracture history were all collected and statistically analysed.



Results

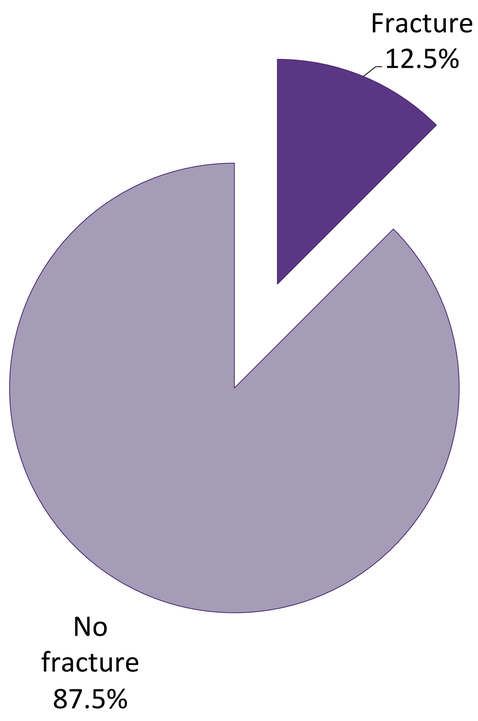


Chart 1. The Prevalence of Fractures in Children with CP.

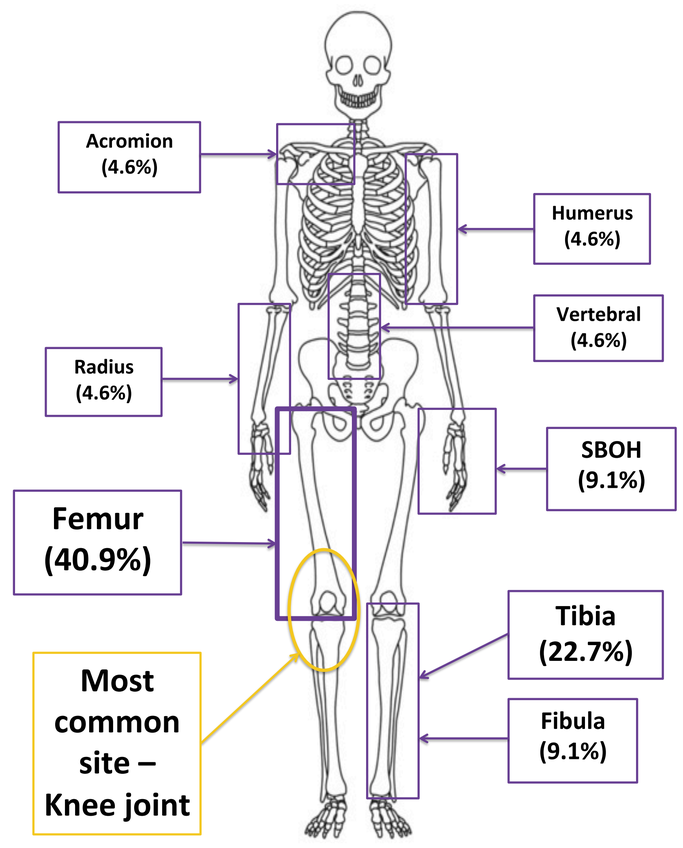


Figure 1. Location of Fractures Sustained.

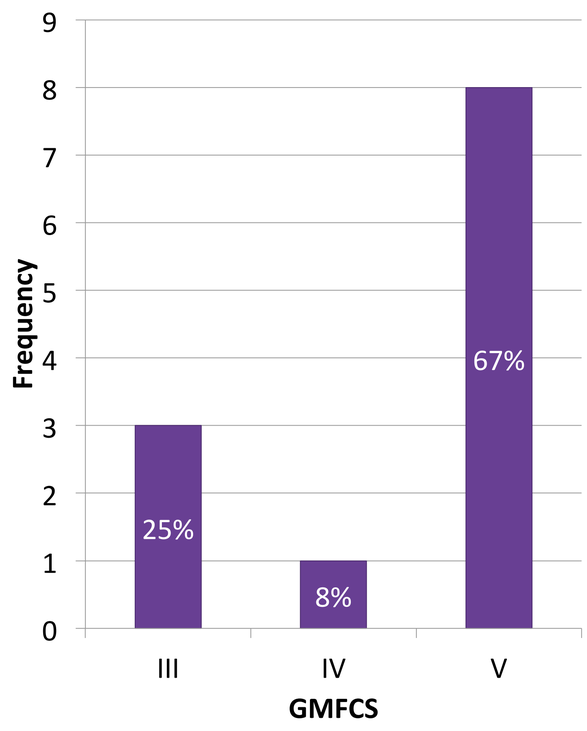


Chart 2. Frequency of Fractures in Relation to GMFCS Level in the Children with Fractures (n = 12).

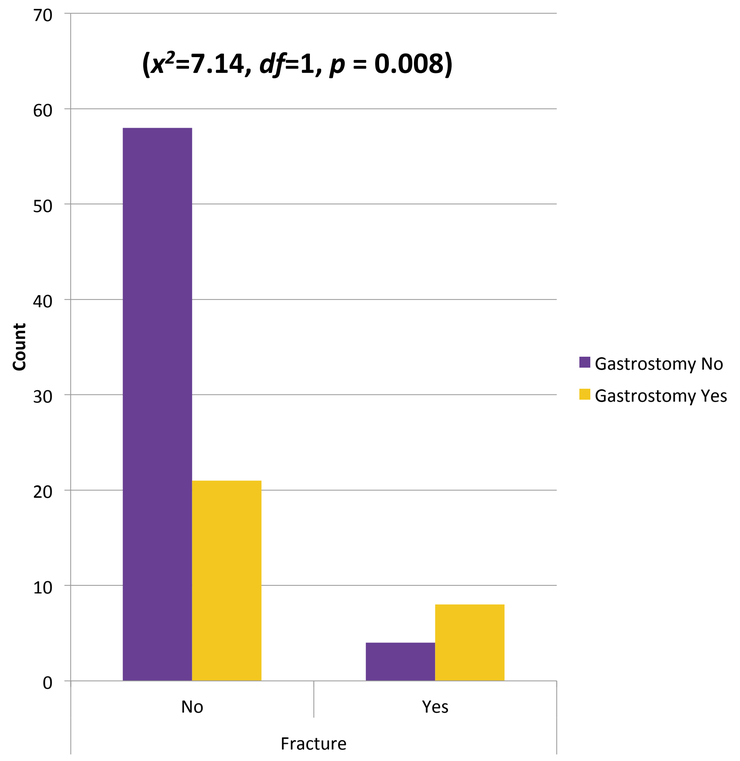


Chart 3. Association between Gastrostomy and Fracture.

Conclusions

The prevalence of fractures in children with CP was found to be consistent with the figures in literature.

Of the risk factors studied, the use of a gastrostomy-feeding device was the only variable found to be associated with an increased fracture risk. However, the presence of a gastrostomy is indicative of the severity of the child's CP, predisposing them to fractures.

This emphasises the needs of a child with moderate-to-severe CP, including further care to be taken in the handling of non-ambulant children with CP.