[Pain, osteopenia and body composition of 22 patients with Duchenne muscular dystrophy: a descriptive study].

[Article in French]
Douvillez B, Braillon P, Hodgkinson I, Berard C.

Author information

Abstract

OBJECTIVES: To study the link between pain, osteopenia and body composition in patients with Duchenne muscular dystrophy and to present a detailed questionnaire to evaluate their pain.

MATERIALS AND METHODS: Twenty-two boys with Duchenne muscular dystrophy, mean age 11.4+/−4.0 years, were examined between February and March 2003. They were asked to complete a detailed questionnaire and undergo a global assessment of pain on a visual analog scale and muscular testing. They were also asked about a history of fractures. Their bone mineral content at the lumbar spine and femoral neck levels, as well as their body composition in fat and lean mass, were assessed by dual energy absorptiometry.

RESULTS: The mean age for walking incapacity was 8.8+/−1.7 years. The youngest patients, who were still able to walk, had a higher level of pain than patients who depended on wheelchairs. No significant correlation was established between pain and osteopenia. One in 2 patients had spontaneous pain, and mobilization was painful for 21. The score obtained by detailed questioning about pain correlates with the average pain scores on visual analog scales. The bone mineral content was lower, especially in the lower limbs, had decreased before the inability to walk and was correlated with muscular weakness. Fractures were more frequent in mobile patients and usually occurred after a fall.

CONCLUSION: Although pain in Duchenne muscular dystrophy has not been extensively studied, it is frequent and significant. Twenty-one patients had moderate to severe pain. The youngest patients had intense pain, especially during mobilisation. To evaluate this pain, we propose to use the mean results of 2 visual analog scales associated with a detailed questionnaire. However, in this study, Duchenne muscular dystrophy, pain and osteopenia were not correlated. Dual X-ray absorptiometry provides interesting information about bone mineral content, fat body mass and lean body mass. The fat body mass was higher than normal in our patients. The bone mineral content and lean body mass were lower than that for normal children, because the dystrophic process advances with age. The fracture prevalence was high, especially in young patients. Falling was the most common mechanism of fracture.

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