Practical problems and management of seating through the clinical stages of Duchenne's muscular dystrophy.

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Abstract

OBJECTIVE: To describe seating problems in patients with Duchenne's muscular dystrophy (DMD), for the purpose of identifying management solutions that are practicable for both patient and caregiver.

DESIGN: Case series.


PARTICIPANTS: Ninety-five patients with DMD (mean age, 15.9+/−4.4y; Swinyard stages: stage 5, n=17; stage 6, n=24; stage 7, n=33; stage 8, n=21).

INTERVENTIONS: Not applicable.

MAIN OUTCOME MEASURES: Spinal deformity types, frequency and sites of pain, wheelchair propulsive ability, activities of daily living, and caregiving-related problems.

RESULTS: Thirty-three percent of the patients belonged to the early straight group, 21% to the scoliotic group, 20% to the kyphoscoliotic group, 2% to the kyphotic group, and 24% to the extended spine group. The percentage needing support for sitting was higher in patients with spinal deformities (76% vs 0%; P<.05). Forty-one percent had pressure problems, and the percentage increased with advancing stages, with pain sites related to spinal deformity types. Self-feeding was difficult in 10 patients having spinal deformities. Four patterns of manual wheelchair propulsion were observed: upper extremity, anteroposterior trunk flexion, lateral trunk flexion, and wrist-hand patterns; and propulsion became increasingly less practical in this order. For toileting, more patients were cared for on wheelchairs with backrests reclined with stage progression. Of 60 caregivers, 58% experienced trauma related to seating systems.

CONCLUSION: The seating problems that were identified enabled specific, practical suggestions to be made for better management.

PMID: 12808532

[Indexed for MEDLINE]