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TO "WALK" OR TO RIDE?

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This paper describes the prosthetic management of a young quadramembral amputee.

PATIENT HISTORY

M.C. is a two-year-old boy born with transverse deficiences of both arms and longitudinal deficiences of both femurs (total) and tibias (partial).

PHILOSOPHY OF TREATMENT

There are immediately apparent two approaches to the lower-limb management of this child: one, to assume that he will eventually elect wheeled mobility and therefore start at the outset with a wheeled vehicle such as the CAPP cart (*1, 4*), bypassing the often short-lived attempt at ambulation; and the other, to provide a swivel walker at the earliest opportunity, increase the height as the child grows, and hope that it will be beneficial for him. Experience has shown that patients usually will choose wheeled mobility in the end. The question, therefore, seems to be is it worthwhile to provide swivel-walker ambulation?

RESOLUTION OF APPROACH

There was a great deal of discussion by our staff concerning which approach to take. The strongest influence was the desire of the parents for M.C. to "walk". Hence the decision was made to provide ambulation.

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PROSTHETIC TREATMENT

At 8 months of age we provided M.C. with conventional, bilateral, passive, shoulder prostheses for the upper limbs. At the same age, we drew on the experiences of Ontario Crippled Children's Centre (*3*) and provided a molded seat mounted on a snow disc to encourage trunk motion and balance (Fig. 1).

Fig. 1. M.C. with bilateral shoulder prostheses and snow disc for learning balance.

Also at the same age, for mobility, we provided another molded seat mounted to a "hippopotamus" crawler from a local toy store. We cut holes in the crawler and positioned the seat the correct height off the floor so M.C. could push along with his flipper feet (Fig. 2).

Fig. 2. M.C. with Hippopotamus mobility aid.

Fig. 3. M.C. with swivel walker.

These devices worked satisfactorily, but the patient quickly outgrew them. At 1-1/2 years of age we provided M.C. with a red, white, and blue "Bi-Centennial" swivel walker (*2*), which he is now happily using (Fig. 3). The molded seat is made of vacuum-formed white polypropylene; the rotational pylon units are covered with white Plastazote; the seat platform is wood painted red; and the "feet" are wood painted blue and lined with shoe-sole bottoms.

DISCUSSION

Having had the experience of one case, we would now view a second such case with more direction, realizing of course that each situation must be considered individually.

M.C. will likely decide to use a wheeled vehicle for mobility when he gets older, because it is, by far, the more efficient mode of "transportation". However, in younger years the growth-development process is extremely important in shaping his future. If, in these years, we can provide a tool/toy/device to assist that process, then we have helped to shape a person. There is not much better physical assistance we can give than to provide the means for a child to stand, "walk" and to "grow" in height with his peers.

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