

LANGUAGE DEVELOPMENT IN A CHILD WITH TRACHEOSTOMY

Marie-Thérèse LE NORMAND, Virginie GRANBOULAN

*Laboratoire de Neuropsychologie de l'Enfant, INSERM
Hôpital de la Salpêtrière, Bâtiment Nouvelle Pharmacie, 3^e étage
47 Boulevard de l'Hôpital, F 75651 PARIS, France*

Although good prognosis with treatment has been reported (Kamen, et al. 1991; Hawskins, et al., 1986; Hill & Singer, 1990; Locke & Pearson, 1988; Simon & Goman, 1989), children with tracheostomy appear to improve their language very slowly and sometimes never achieve normal intelligible speech (Bleile, et al., 1993). The debate concerning the acquisition of speech and language of tracheostomized children remains limited because clinical studies do not provide precise linguistic analysis of follow-up data, especially from babbling to first words.

The child reported here was premature (G.A: 26 weeks, B.W: 1600gr.). He was hospitalized 123 days in a pediatric intensive care unit (ICU). He presented respiratory distress, with interstitial emphysema leading to bronchopulmonary dysplasia (BPD). He was tracheostomized at the age of 5 months and hospitalized because of prolonged mechanical ventilation. Decannulation was possible at 8 months, and he returned home under oxygen therapy with daily chest physiotherapy. Neuromotor abnormalities were detected during hospitalization and after discharge. Clinical and psycholinguistic examination showed evidence of (a) no hearing loss (b) no intellectual impairment (c) an average level of fine manual motor skills (d) no behavioral disorders, and (e) a normal language comprehension and production.

Longitudinal data of his speech and language production following decannulation has been analyzed phonetically and acoustically in great detail and compared with a normally developing child, from the age of 8 months to the age of 2 years.

The findings provided some evidence of a delay in prosodic (rate of canonical syllables production) and segmental (size of consonant inventory) output, but not in word production (rate of different words in a standardized play situation confirmed by the CDI inventory, cf. Fenson, et al., 1993).

Despite the important neuromotor deficit and the prematurity of this child, such findings support the notion that babbling experience and vocal self-stimulation from 8 months on may promote the emergence of the first words appropriate to cognitive abilities at the age of 2.