

# Developmental setback in children with congenital blindness

## Literature review and record analysis

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### Introduction

Clinical impression: some blind children show regression in development and/or specific behaviour from 18-24 months. Retrospective studies of this "Developmental Setback" (DS) in blind children from researchers of the Developmental Vision Service, London.

#### Research questions

- Other research reports on DS in blind children?
- Prospective studies on DS?
- Developmental scales sensitive enough to measure regression?
- DS mentioned in longitudinal studies on children with congenital blindness?
- Percentage of own caseload showing setback?

### Method

#### A. Literature search

1. Visual impairment and developmental setback: several databases.
2. Longitudinal studies on development of young blind children: "handselected".

#### B. Record analysis

Retrospective analysis of own caseload.

### Results (work in progress)

#### A. Literature search

1. Visual impairment and developmental setback (7 articles)
  - All authors associated with Developmental Vision Service, London, using Reynell Zinkin (RZ) scales.
  - DS in children with Profound Visual Impairment: 30- 33%. Deceleration in Verbal Comprehension and Sensorimotor understanding. Expressive language preserved.
  - 27-54 months: children with DS: Developmental Quotients < 70, also difficulties in social interaction.
  - Recovery in some children. No recovery in social interaction.
  - Contributing/risk factors: vision, age, cognition, joint attention, psychosocial, neurological, family, genetic, gender.

#### 2. Longitudinal studies

- 19 studies, 14 different authors
- 4 not mentioning regression
- 6 mentioning regression
- 9 not mentioning regression but difficulty in acquiring skills

#### Record analysis

- RZ assessments: N=7
- Age of assessment: 5 - 47 months
- 7 children normal development at 12 months
- 3 delay but recovered
- 3 developmental setback, no recovery
- 1 normal development

### Preliminary findings

- Only one research group published on DS.
- Longitudinal studies and own record analysis seem to confirm existence of DS.

#### Discussion

- RZ scales sensitive enough < 18 months? And other instruments?
- Blindness in combination with other factors (cognitive, neurological, social) leads to DS?
- Do sensory integration, attachment, intersubjectivity and joint attention contribute?
- Periods of disorganisation and life events trigger regression?

### And next?

#### Scientific:

- Prospective research, monitoring development (period 10 years) to pinpoint factors that may contribute to DS.
- Establish uniform database of blind children in Europe.

#### Clinical:

- Intensive early intervention first three years.
- Regression: extensive assessment and treatment.

- Intention to publish findings → Recommendations?

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