

Tot = 1000 parole

Pragmatic and cognitive abilities in children with Brain Neoplasm: Assessment and analysis using the Assessment Battery for Communication

Marchetti Guerrini A., Gabbatore I., Strazzer S., Poggi G., Bardoni, A., Bosco F. M.

Introduction

Brain Neoplasms (BNs)¹ is an Acquired Brain Injuries (ABIs). In BNs, lesions are caused by a neoplastic mass and by the adverse sequelae of radio- and chemo-therapy. Childhood's ABIs have an impact on cognitive functions and pragmatics that usually persists over years. A lack of validated tools to assess pragmatics of children with ABIs is reported. The existing tests mainly investigate the linguistic component, without exhaustively assessing other expressive means.

The aim of this study is to analyse pragmatic ability of children with BNs. This study is part of a wider project aimed at investigating pragmatic and cognitive abilities of children with ABIs.

Methods

Study design: cross-sectional study.

The clinical group (BNs) consists of 13 children with BNs aged 6 to 16 years, matched by age and gender with a control group of Typically Developing (TD) children.

Pragmatics is assessed by the Assessment Battery for Communication (ABaCo, Angeleri et al., 2012; Bosco et al., 2013) children version, a validated assessment tool composed by 5 scales (i.e., conversation, context, paralinguistic, linguistic and extralinguistic), which assess a wide range of pragmatic phenomena in both comprehension and production.

Preliminary Results

The Mann Whitney U test shows that there is a statistically significant difference in the performance of the two groups on the ABaCo total score ($U=132.00$; $z=2.442$; $p=.014$; $r=.479$) with BNs performing worse than TD.

Mann Whitney U tests highlight a statistically significant difference in the performance of the two groups on paralinguistic ($U=134.50$; $z=2.620$; $p=.009$; $r=.514$) and extralinguistic scale ($U=125.00$; $z=2.093$; $p=0.39$; $r=.410$), with BNs performing lower than TD, but not on linguistic ($U=100.50$; $z=.830$; $p=.418$; $r=.163$) and contextual scale ($U=90.00$; $z=.307$; $p=.801$; $r=.060$). The difference on conversational scale was just above the threshold for statistical significance ($U=122.00$; $z=2.271$; $p=.057$; $r=.445$).

Conclusions

Preliminary results confirm the presence of pragmatic difficulties in children with BNs. In particular, difficulties on paralinguistic and extralinguistic scale underline the need to assess pragmatics using different means of expression; this will allow to detect more precisely the

difficulties of children with BNs providing a more efficient rehabilitation program. A larger sample is needed in order to generalize these findings.

References

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