Narrative Discourse Recovery in Acute Post-Stroke Aphasia: the Importance of Thematic Informativeness

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BACKGROUND

• Discourse analysis is commonly included in comprehensive language assessments of patients with aphasia (PWA).¹
• However, very few studies documented discourse recovery following stroke,² even less in the early stage.
• Some microlinguistic variables (e.g., MLU, words/min) and macrolinguistic variables (e.g., informativeness) are good indicators ³–⁴ of language impairments.
• Recent findings indicate that some discourse measures are of special interest in the acute stage following a stroke.⁵

AIM: Document and measure thematic informativeness in the acute stage of recovery following a left hemisphere stroke

METHODS

Participants: Twenty-three PWA following a first ischemic stroke of the left middle cerebral artery, all aphasia types and severities, all French-Canadian speakers, 10/23 received thrombolysis.

Thematic informativeness variables
- Thematic units (TUs): Relevant information units specific to the WAB Picnic scene
- General Informativeness Measure (GIM): TUs + other relevant informations and phonemic or syntactic errors

Microlinguistic variables
Total words, words/minute, MLU (words), MATTR, Density, % semantic paraphasia, % phonological errors, % adequate utterances

Data analysis
- Transcription and data analysis: using CHAT convention
- Extraction of microlinguistic data using CLAN program

Statistical analysis
(with SPSS® v25.0. software)
- Two-factor mixed-design ANOVAs with group (treated with thrombolysis and untreated) as the between-subject factor and time (T1 and T2) as the within-subject factor

RESULTS

Figure 1. Experimental design

Figure 2. General Informativeness Measure

Figure 3. GIM Individual raw scores

In the early stage of language recovery:
- Thematic informativeness measures are more sensitive to language recovery than microlinguistic variables;
- GIM and TUs are reliable measures of informativeness;
- Most patients that received thrombolysis obtained higher scores.

Future studies should:
- Investigate discourse in very early stages of post-stroke recovery to document the impact of thrombolysis administration;
- Explore long term changes in discourse production;
- Develop new language tests based on these knowledge and specifically designed for SLP working in acute care facilities.

REFERENCES


DISCUSSION / CONCLUSIONS

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