

Rupture of a non-traumatic anterior communicating artery aneurysm:

Does location of aneurysm associate with functional independence after neurorehabilitation?

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Aim

To explore the association between location of aneurysm and level of functional independence, measured by Functional Independence Measure (FIM), at discharge from specialized interdisciplinary neurorehabilitation.

Background

Patients with an aneurysm located at the anterior communicating artery (ACoA) often experience disabilities within executive functions and social behavior. It is unknown whether this location of aneurysm also affects the possibility for improvement in functional independence compared to patients with an aneurysmal subarachnoid hemorrhage (a-SAH) located elsewhere.

Design and study population

Historical cohort study among 107 patients with a-SAH based on data from a clinical database and a population-based register.

Analysis

FIM contains of 18 items (13 motor and 5 cognitive) scored on an ordinal scale (1-7), which is further aggregated into three levels of functional independency: total dependency (score 1-2), moderate dependency (score 3-5), and independency (score 6-7). We estimated the item-by-item odds ratio (OR) for independency at discharge between patients with a rupture on ACoA and aneurysms located elsewhere by multivariable logistic regressions adjusted for gender and age.

Results

Patients with an ACoA were admitted with poorer cognitive FIM score (median 6 (IQR 5-14)) compared to patients with aneurysms located elsewhere (median 12 (IQR 6-23)). No difference was observed between the groups at discharge.

There was no association between aneurysm location and level of functional independence at discharge.

Adjusted odds-ratios for each FIM item for ACoA vs. other location of a-SAH

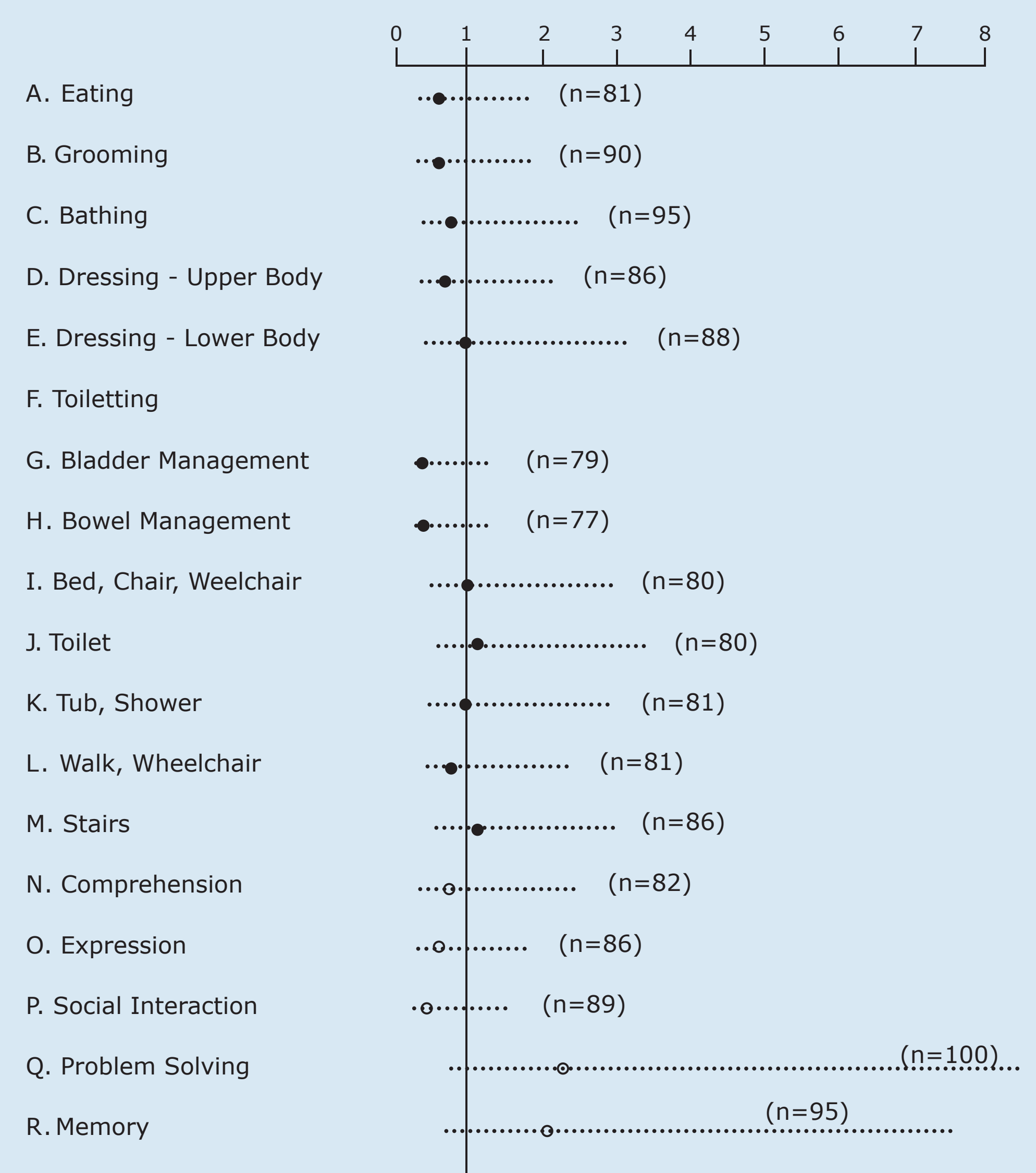


Figure 1

FIM = Functional Independence Measure - a-SAH = aneurysmal subarachnoid hemorrhage - ACoA = Anterior Communicating Artery aneurysm
● = motor item - ○ = cognitive item - = 95% confidence intervals

Conclusion

Rupture of an aneurysm located at ACoA was not associated with poorer level of functional independence at discharge from specialized interdisciplinary neurorehabilitation compared to patients with a-SAH located elsewhere.



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