

PATIENT FUNCTIONAL STATUS IS STRONGEST CORRELATE OF CHALLENGING BEHAVIOUR AFTER BRAIN TUMOUR

January 2009

ABSTRACT

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TRIM reference number: E09/04767
Published by the Cancer Institute NSW, March 2009.

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Patient functional status is strongest correlate of challenging behaviour after brain tumour

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Purpose

Few studies have documented behavioural disturbance, impairments in executive functioning as well as emotional/social dysfunction (as distinct from mood disturbance) associated with brain tumour (BT). This study investigated (i) the prevalence of such challenging behaviours (CBs) and (ii) potential correlates among patient, tumour, treatment variables and functional status.

Methods

A consecutive series of 54 patients with BT recruited from two Sydney-based hospitals completed a series of self-report surveys documenting patient impairment. Thirty seven carers derived from this series also participated. Measures of CBs included the Frontal Systems Behaviour Rating Scale (FRSBE), Overt Behaviour Scale (OBS), and Emotional/Social Dysfunction Questionnaire (ESDQ). Functional measures included the Sydney Psychosocial Reintegration Scale (SPRS; self-report scale documenting function in occupational, relationship, and independent living domains) and clinician-rated Karnofsky performance scores (KPS; 31% at 90-100; 34% at 80; 35% at 50-70).

Results

Median patient age was 51 years (range 18-91) and time since diagnosis was 4 months (range 1-82). Patients had high grade (39%), low grade (22%) or benign tumours (39%) and 60% underwent radiotherapy. Patient self-report found prevalence rates of CBs ranging from 17% - 50% across various domains including verbal aggression, physical aggression, lack of initiation, disinhibition, apathy and executive impairments.

No consistent pattern of correlates was found between CBs (patient or carer report) and patient demographics, tumour features (benign versus malignant diagnosis, grade, location), treatment timing or modality (surgery, radiotherapy or chemotherapy). However, functional status (Karnofsky and SPRS scores) demonstrated significant correlations (.30-.50 range) with various carer-rated CB variables including FRSBE apathy and executive impairment subscales; ESDQ emotional dysfunction, fatigue, inappropriate behaviour, and poor insight subscales, and OBS total score.

Conclusions

Patients' functional status may be the most useful indicator of challenging behaviours after brain tumour. Karnofsky scores could be linked to further screening questions to help identify and subsequently manage challenging behaviours in brain tumour patients.