Activities of daily living

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- Probable Cerebral Amyloid Angiopathy-Related Inflammation Presenting as an Incidental MRI Finding in an Elderly Patient: A Case Report
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Activities of Daily Living (ADL) refer to the routine activities that individuals perform on a daily basis to take care of themselves and maintain their well-being. These activities are essential for personal independence and are often used to measure an individual's functional status. The concept of ADL is commonly used in healthcare, particularly in assessing the level of assistance or care individuals may need. The basic ADLs include:

Personal Hygiene:

Activities: Bathing or showering, grooming (including oral care), and nail care. Significance: Maintaining personal cleanliness and grooming contributes to overall well-being and social interaction. Dressing:

Activities: Selecting appropriate clothing, putting on and taking off clothes, and managing buttons or fasteners. Significance: The ability to dress independently is crucial for maintaining personal dignity and participating in daily life. Eating:

Activities: Feeding oneself, including the ability to use utensils and drink from a cup or glass. Significance: Ensuring proper nutrition and hydration is essential for overall health. Mobility/Transferring:

Activities: Moving from one position to another, such as getting in and out of bed, transferring from a chair to a standing position, or walking. Significance: Mobility is key for independence and participating in community and social activities. Toileting:

Activities: Using the toilet, maintaining personal hygiene after toileting. Significance: The ability to manage toileting independently is essential for personal comfort and dignity. Continence:

Activities: Controlling bowel and bladder function. Significance: Maintaining continence is important

for overall hygiene and quality of life. These ADLs are fundamental for an individual's ability to live independently. Assessments of ADLs are often conducted by healthcare professionals to determine the level of assistance or care required, especially in the context of aging, disability, or rehabilitation. Additionally, there are more complex instrumental activities of daily living (IADLs) that involve higher-level cognitive and organizational skills, such as managing finances, preparing meals, and using transportation. The assessment of both ADLs and IADLs provides a comprehensive understanding of an individual's functional abilities and needs.

Genetic testing has improved the accuracy of brain tumor diagnosis, and treatment is now tailored to the type of brain tumor. In contrast, the factors that influence the improvement in independence in activities of daily living (ADLs) following rehabilitation have not been clarified, particularly the role of tumor type. In this retrospective cohort study of 358 participants, we analyzed changes in the Functional Independence Measure (FIM) from pre-rehabilitation to post-rehabilitation provided in an acute care hospital. Multiple regression was used to determine whether FIM gain is associated with age, gender, preadmission Karnofsky Performance Status (KPS), number of rehabilitation days, average duration of daily therapy (min/day), and tumor recurrence and type (WHO grade 1, 2, 3, and 4 gliomas; primary central nervous system lymphomas; and metastatic brain tumors). The results showed that older age (β -0.183), tumor recurrence (β -0.137), preadmission KPS < 80 (β -0.180), and higher baseline total FIM score (β -0.470) were associated with lower FIM gain whereas the average duration of daily therapy (β 0.153) was associated with higher FIM gain. Brain tumor type was not associated with FIM gain. Improved independence in ADLs is more influenced by demographic, functional status, and treatment factors than differences in brain tumor type [1)].

Most survivors of an aneurysmal subarachnoid hemorrhage (aSAH) are ADL-independent, but they often experience restrictions in (social) activities and, therefore, cannot regain their pre-morbid level of participation. OBJECTIVE: In this study, participation restrictions and participation satisfaction experienced after aSAH were assessed. Moreover, possible predictors of participation after aSAH were examined to identify goals for rehabilitation. METHOD: Participation restrictions experienced by a series of 67 patients visiting our SAH outpatient clinic were assessed as part of standard clinical care using the Participation Restrictions and Satisfaction sections of the Utrecht Scale for Evaluation of Rehabilitation Participation (USER-Participation) 6 months after aSAH. Cognitive impairments, cognitive and emotional complaints, and symptoms of depression and anxiety, assessed 10 weeks after aSAH, were examined as possible predictors of participation by means of linear regression analysis. RESULTS: Although patients were ADL-independent, 64% reported one or more participation restrictions and 60% were dissatisfied in one or more participation domains. Most commonly experienced restrictions concerned housekeeping, chores in and around the house, and physical exercise. Dissatisfaction was most often reported about outdoor activities, mobility, and work/housekeeping. The main predictors of participation restrictions as well as satisfaction with participation were cognitive complaints (subjective) (β = -.30, p = .03 and β = -.40, p = .002, respectively) and anxiety (β = .32, p = .02 and β = -.34, p = .007, respectively). CONCLUSIONS: Almost two-thirds of the ADL-independent patients experienced problems of participation 6 months after aSAH. Cognitive complaints (subjective) and anxiety symptoms showed the strongest association with participation restrictions and satisfaction. Cognitive rehabilitation and anxiety-reducing interventions may help to optimize rehabilitation and increase participation after aSAH [2)].

In recent years, the majority of the population has become increasingly reliant on continuous and independent control of smart devices to conduct activities of daily living. Upper extremity movement is typically required to generate the motor outputs that control these interfaces, such as rapidly and accurately navigating and clicking a mouse, or activating a touch screen. For people living with tetraplegia, these abilities are lost, significantly compromising their ability to interact with their environment. Implantable brain computer interfaces (BCIs) hold promise for restoring lost neurologic function, including motor neuroprostheses (MNPs). An implantable MNP can directly infer motor intent by detecting brain signals and transmitting the motor signal out of the brain to generate a motor output and subsequently control computer actions. This physiological function is typically performed by the motor neurons in the human body. To evaluate the use of these implanted technologies, there is a need for an objective measurement of the effectiveness of MNPs in restoring motor outputs. Sawyer et al. propose the concept of digital motor outputs (DMOs) to address this: a motor output decoded directly from a neural recording during an attempted limb or orofacial movement is transformed into a command that controls an electronic device. Digital motor outputs are diverse and can be categorized as discrete or continuous representations of motor control, and the clinical utility of the control of a single, discrete DMO has been reported in multiple studies. This sets the stage for the DMO to emerge as a quantitative measure of MNP performance [3]

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