

NEUROGENIC FECAL INCONTINENCE AS A PREDICTOR FOR DISCHARGE SETTINGS AFTER REHABILITATION: A RETROSPECTIVE STUDY ON 546 BRAIN INJURY PATIENTS.

Hypothesis / aims of study

Fecal incontinence (FI) occurs in 3% to 46% of residents in nursing homes and hospitals (1); in the overall population, the prevalence of FI is probably 7.2 to 10.% (2). FI is common in patients with acquired brain injury (ABI): few studies have been carried out, but prevalence has been reported as 68% acutely and 5% at one year.

While there is evidence that FI affects global outcome, to date, no data are available from clinical studies that were specifically designed to evaluate FI as a predictor of discharge settings after inpatient rehabilitation.

Study design, materials and methods

Retrospective evaluation was made on 546 patients, admitted consecutively to a Neurorehabilitation Unit following ABI, between January 2000 and December 2013, of whom 382 were male and 164 female, with an average age of 46.8±19.3 years. Patients who presented associated spinal cord injury (11 patients) were excluded, as were those with previous faecal or anal incontinence (4 patients). Data were collected from electronic medical records and supplemented with chart review.

The rehabilitation programme for these patients includes the provision of optimal nutrition, control of infections, management of bladder, bowel and autonomic disorders, provision of specialist seating and control of posture and tone problems. Patients underwent one hour of physical therapy treatment and one hour of speech therapy every day, to prevent tertiary injury. Rehabilitative treatment involved passive joint mobilisation and helping/placing patients into an upright sitting position on a tilt table.

All the patients were evaluated upon entry as to their bladder and bowel voiding, combining clinical observations with items specific to related activities contained within the Functional Independence Measure (FIM).

The discharge setting from neurorehabilitation was verified, seeking any correlatable factors such as the pathogenesis of the ABI, Level of Cognitive Functioning Scale score (LCF) (3) at admission and at discharge, site of the encephalic lesion, occurrence of paroxysmal sympathetic hyperactivity, presence of pelvic girdle fractures, duration of tube feeding, fecal incontinence at admission, incidence since the acute event of healthcare-related infections, in particular *Clostridium Difficile* infections.

Results

Fecal incontinence was present in 448 patients (84.4%) on admission. This can be correlated particularly with the presence of frontal lobes lesions (n=210, 39.7%), the occurrence of paroxysmal sympathetic hyperactivity in the acute phase (n=103, 19.4%), and pelvic girdle fractures (n=57, 10.7%). On discharge, anal or fecal incontinence was present in 274 patients (52%) and its persistence as a function of the variables analysed in the logical model can be correlated to the presence of frontal lobes lesions caused by high kinetic impact (p<.0001, OR 33.83), the persistence of paroxysmal sympathetic hyperactivity in the rehabilitative phase (p<.0001, OR 2.08), and to the LCF score < 5 upon discharge (p<.0001).

On discharge, the incidence of anal or faecal incontinence is lower than the overall average (103, 34% vs. 52%) in patients discharged to their homes (n=302); for those discharged into long-term care (n=109), the incidence of faecal incontinence is above average (95, 87% vs. 52%); the pattern is similar for transfers to Vegetative State Unit (n=31, 94% vs 52%). All of the above findings are statistically significant (p<.05).

Interpretation of results

New-onset faecal incontinence is a frequent outcome of serious ABI, particularly concomitantly with the presence of frontal lobes lesions and with long-term persistence of paroxysmal sympathetic hyperactivity; there is apparently no significant correlation with the duration of enteral feeding, the presence of healthcare-related infections, or the presence of faecal incontinence on admission. Therefore, it seems to correlate predominantly with the severity of the brain damage and its presence determines the type of setting after discharge.

Concluding message

These data confirm the importance of introducing the management of neurogenic bowel dysfunction into rehabilitative treatment during the intensive rehabilitation phase following brain injury.

References

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Disclosures

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