Femoral neck fracture urgent surgery: Prevalence of delirium and risk factors in our population

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BACKGROUND:

Delirium is a frequent complication in patients hospitalized with femoral neck fracture, with a **prevalence of 13-70%**. Its occurrence is associated with **increased morbidity and mortality**. Several risk factors have been associated with the occurrence of delirium in patients hospitalized for femoral neck fracture, some of these considered modifiable.

OBJECTIVES:

1. Assess the prevalence of delirium in patients with femoral neck fracture (FNF) undergoing reduction and osteosynthesis (RO);
2. Identify risk factors for the presence of delirium in this population.

METHODS:

WHAT? Observational, retrospective study of patients with FNF undergoing RO surgery alone;

WHEN? From January to December of 2016;

WHERE? In a tertiary university hospital.

Delirium: whenever documented at clinical process: **acute cognitive dysfunction and/or psychomotor agitation**.

Demographic variables analyzed:

✓ Age	✓ Treatment with psychoactive drugs	✓ Pre-op and pos-op days of hospitalization
✓ Sex	✓ Previous hospitalization (3 months)	✓ Type of anesthesia
✓ Dependence	✓ Pre-op Hb	✓ Pos-op complications
✓ Institutionalization	✓ Pre-op creatinine	
✓ Previous dementia	✓ Pre-op albumin	

Univariate analysis with chi-square test; multivariate analysis with binary logistic regression; Statistical significance: $p < 0.05$.

RESULTS:

	Ø Delirium (n=62)	Delirium (n=72)	p value
Age (years)	80.12 (SD 10.9)	85.9 (SD 7.7)	< 0.001
Female sex	45 (72.6%)	49 (68.1%)	0.560
Dependence	44 (71.0%)	14 (19.4%)	<0.001
Institutionalization	6 (9.7%)	18 (25.0%)	0.002
Dementia	1 (1.6%)	30 (41.7%)	<0.001
Psychoactive Drugs	20 (32.3%)	46 (63.9%)	<0.001
Previous Hospitalization	6 (9.7%)	9 (12.5%)	0.786
Pre-op Hb	11.7 (SD 1.4)	11.4 (SD 1.5)	0.254
Pre-op Creatinine	1.08 (SD 0.66)	1.12 (SD 0.79)	0.718
Pre-op Albumin	3.6 (SD 0.8)	3.4 (SD 0.5)	0.037
Pre-op Days of Hospitalization	2.7 (SD 2.9)	3.3 (SD 3.2)	0.350
Anesthesia			
General/Combined	29 (46.8%)	27 (37.5%)	0.288
Pos-op Days of Hospitalization	9.8 (SD 11.1)	10.0 (SD 7.3)	0.924
Pos-op Complications	24 (38.7%)	34 (47.2%)	0.383

	OR	IC 95%	p value
Age	1.05	0.98-1.12	0.140
Female sex	0.47	0.15-1.45	0.190
Dependence	7.33	2.41-22.27	<0.001
Institutionalization	0.61	0.15-2.56	0.500
Dementia	29.59	3.36-260.45	<0.001
Psychoactive Drugs	13.8	0.48-4.02	0.550
Pre-op Albumin	0.59	0.23-1.50	0.270

Previous dependence and dementia are independently associated with the occurrence of delirium

CONCLUSION:

In our cohort of patients undergoing femoral neck fracture osteosynthesis **53.5% of the patients presented with delirium**. The presence of **previous dependence** and **dementia** appear to be independently associated with the **occurrence of delirium** in this subgroup of patients. The **identification of these risk factors** may lead to preventive attitudes.