

Predictors of Delirium in Corticosteroid-Treated Patients with Advanced Cancer: An Exploratory, Multicenter, Prospective, Observational Study. Matsuo et al

Presented by: Hazem Shoblak, FMR2, April 19th, 2017

Reference: JOURNAL OF PALLIATIVE MEDICINE Volume 20, Number 4, 2017

DOI: 10.1089/jpm.2016.0323

Background: Corticosteroids are often used to treat fatigue and anorexia, but occasionally produce delirium. Information on the predictors of delirium in corticosteroid-treated cancer patients remains limited.

Objective: To identify potential factors predicting the development of delirium in corticosteroid-treated cancer patients.

Design: An exploratory, multicenter, prospective, observational study. Inclusion criteria for this study were patients who had metastatic or locally advanced cancer and a fatigue or anorexia intensity score of 4 or more on a 0–10 Numerical Rating Scale.

Measurement: Univariate and multivariable analyses were performed to identify the predictors of delirium diagnosed by the Confusion Assessment Method (CAM) within three days of initiation of corticosteroids.

Outcome: Endpoint was the development of delirium diagnosed using the Confusion Assessment Method (CAM).

Results: Among 207 patients administered corticosteroids, 35 (17%; 95% confidence interval [CI] 12%–23%) developed at least one episode of delirium diagnosed by the CAM. Factors predictive of the development of delirium were as follows: Palliative Performance Scale <20, Eastern Cooperative Oncology Group Performance Status (ECOG PS) = 4, the Support Team Assessment Schedule (STAS) score of drowsiness >1, concurrent opioid use, parenteral hydration volume <500 mL, and the absence of lung metastasis. A multivariable analysis identified the independent factors predicting responses as ECOG PS = 4 (odds ratio [OR] 4.0; 95% CI 1.7–9.3), STAS score of drowsiness >1 (OR 3.4; 95% CI 1.4–8.2), and concurrent opioid use (OR 3.7; 95% CI 1.0–13).

Conclusion: Delirium in corticosteroid-treated advanced cancer patients may be predicted by Performance Status, drowsiness, and concurrent opioid use. Larger prospective studies are needed to confirm these results.

Strengths:

Prospective, multicenter.

Reasonable question to pose – first observational study to explore this issue (new).

Using validated tool to identify delirium (CAM).

Weaknesses:

Observational study – low quality evidence (no control group)

Wide confidence intervals

Variable doses of corticosteroids among different study sites – different steroids as well.

Etiologies of drowsiness are multivariable between patients.

Applicability / Bottom line:

Corticosteroids are used to treat dyspnea, fatigue, anorexia, and cord compression, among other palliative care entities. Most times, their benefits outweigh their adverse effects, and will continue to be used regardless of the risk of delirium.