Delirium in Elderly Patients Hospitalized and Undergoing Urologic Surgery: Incidence and Predictive Role of Multidimensional Geriatric Evaluation (MGE) to Define a High-Risk Population and Prevent Complications: Results of a Prospective Study

Introduction and Objectives: Delirium (acute derangement syndrome) is a common condition occurring in hospitalized older pts with negative consequences, including higher post-op complication rates and death, disability, permanent cognitive decline and institutionalization. It determines a longer hospitalization and an increase of costs. Its incidence ranges from 15 to 35% in postoperative phase, from 70 to 87% in intensive care (IC). Several studies have attempted to set criteria delineating a high-risk profile to develop delirium. The objective of this prospective study was to evaluate the impact of a MGE in 3 settings of pts hospitalized for medical or surgical conditions and to evaluate the incidence and the possible causes of delirium

Method: There were 274 elderly pts. admitted to 2 hospitals evaluated in 3 different settings. There were 62 /274 pts (22.6%) from different depts. Who received a MGE on request during their hospital stay (Group 1). There were 159/274 (58%) dismissed pts. and regularly followed as out-pts. had a MGE at home (Group 2); 53/274 pts (19.4%) admitted for an elective urological procedure had a pre-op and post-op MGE and were strictly followed (Group 3).The mean age was 80.8, 80.3 and 78.1yrs respectively. The MGE included 19 items that were recorded in all pts. (drug history, delirium rating scale). In this last group, MGE was daily applied by nurses to define incidence and clinical characteristics of delirium. F-UP was planned at 1, 3 months and 1 year after discharge to evaluate global health and specifically functional and cognitive pts. status.

Results: In Group 1 (62 pts) 75.8% of pts had MGE positive for delirium. Older age, high number of drugs used (digitalis and antibiotics) and depression were significantly correlated with delirium. In Group 2 (159 pts) 31.4% of subjects had delirium. Sex (females), >age, worse cognitive status and types of drugs used (digitalis, neuroleptics, antidepressant) were correlated with delirium. In Group C (53 pts affected by BPH and prostate, bladder and kidney cancer) 14.6% had a MGE test positive for delirium. Presence of co-morbidities, ASA score III-IV, type of anesthesia (general vs spinal) were correlated with delirium.

Conclusion: The incidence of delirium varies among the elderly population. MGE is an appropriate tool to detect it. Older age, low cognitive status , depression and N of drugs used are correlated with it. In urological pts candidate for surgery, high N of co-morbidities, ASA score III-IV and type of anesthesia (general) predict the onset of delirium. Pharmacological research is ongoing to detect the variation of cholinergic agents that may be also responsible for Delirium.