Painful procedures and procedural sedation in elderly patients with co-morbidities in the emergency department

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CONTEXT: Elderly management in life-threatening conditions is a problematic task especially when a painful procedure is considered. In fact, besides age, comorbidities play a major role in assessing the procedure itself. If conducted, what about procedural sedation (PS)?

OBJECTIVE: To investigate whether being of an older age with comorbidities is associated with the decrease in procedural sedation.

DESIGN: A retrospective descriptive study.

SETTING: Emergency department (ED) of La Rabta Hospital in Tunis.

PARTICIPANTS: Since we do not have precise statistics on the field in our ED, we included randomly 140 patients who had undergone a painful procedure from March 2018 to October 2018.

METHODS: We compared 70 patients aged 66 years and older (group 1) to 70 patients aged 18 to 65 years (group 2). Both groups included respectively 62 and 51 patients with comorbidities. We admitted that painful procedures consist in any form of arterial puncture, catheterisation, thoracic drainages or abdominal tap. We collected sociodemographic information, medical history, level of autonomy assessed by Karnofsky index and use of PS. Descriptive statistics were calculated using statistical analysis software (spss). $\chi 2$ tests were used to compare the categorical variables across the two age groups.

RESULTS: In group 1, 7.1 % had PS compared to 31.4 % in group 2 ($p < 0.001$). Besides, 98.38 % of elderly with comorbidities, did not receive PS while conducting a painful procedure compared to elderly with no medical history ($p = 0.03$). In group 2, there was no statistically significant relation established between comorbidities and PS ($p = 0.878$). Actually, 31.37% of patients with comorbidities aged less than 65 years had PS. Gender was not associated with PS conduction neither in group 1 nor in group 2 ($p = 0.127$ and 0.06 respectively). In group 1, 75.38 % of patients who did not receive PS are non-autonomous ($p = 0.002$). In group 2, this association between autonomy and PS was not statistically significant ($p = 0.07$).

CONCLUSION: The poor use of procedural analgesia in elderly has been established through this study. Conversely, the younger seem to benefit more from PS. Comorbidities and the low level of autonomy seem to further decrease the anesthetic prescription among the elderly.