The role of G8 screening tool in elderly population undergoing radical cystectomy: preliminary evaluation

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Objectives

In geriatric practice, the G8 screening tool represents a valid instrument for the identification of functional decline in oncological elderly patients (pts).

Recently it has demonstrated good predictive value in surgery to identify frail pts candidates for oncological abdominal surgery.

Our study has the objective to define if G8 score is a good tool to identify the risk of postoperative complications in elderly pts (≥70 years) undergoing radical cystectomy (RC).

Materials and Methods

From January 2012 to August 2017 we recruited 56 pts. 70 years or older at the surgical time, undergone RC.

Median age was 76 years (SD 4,37), 41 pts were male (73,2%) and 16 pts female (26,8%). Median BMI was 25,73 (SD 4,03). 8 pts (14.3%) were affected by type 2 diabetes mellitus, 32 (57.1%) suffered hypertension and 18 (32.1%) had stage III or higher chronic kidney disease.

The G8 screening questionnaire was performed to all patients preoperatively, and fragile pts were identified with a score ≤ 14. We registered intra operative complications, post operative complications and their gravity using Clavien-Dindo scale, estimated glomerular filtration rate (eGFR) and its variation postoperatively, length of hospital stay after surgery and readmission rate within 30 days.

We compared the clinical-pathological data between the frail (G8 score ≤14) and not frail (G8 score >14) group. Statistical analyses were made by computing software SPSS.

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Table 1. Gender, age and comorbidity of population

Table 2. Clinical and pathological characteristics of population

Table 3. Intra and post-operative surgical characteristics of population

Table 4. G8 Screening Tool comparing to Complications and ∆GFR of population

Results

Median preoperative G8 score was 13,65 (SD 2,3). Pts were divided in fragile (n=35, 62,5%) and not frail (n=21, 37,5%).

Intra operative complications were registered in 1 pts (2,8 %) with G8 score ≤14 and 0 pts (0%) with G8>14 (p=0,625).

Post operative complications occurred in 24 pts (48,5 %) with G8 score ≤14 and 8 pts (38,09 %) with G8>14 (p=0,625). 12 and none of them had a Clavien-Dindo Score ≥ 3 respectively (p=0,219).

Postoperative eGFR was 61,45 (SD 29,2) in G8 ≤14 group and 57,66 (SD 25,84) in G8>14 group (p=0,62) and median variation between postoperative eGFR was 7,8 (SD 27,45) and 8,0 (SD 26,01) for each group (p=0,97).

Male hospital stay was 25,45 days (SD 11,01) for fragile pts and 24,25 days (SD 11,32) for pts not fragile (p=0,66).

No significant difference was registered for overall mortality (p=0,23) and cancer related mortality (p=0,53) between the two groups.

Conclusions

The G8 screening tool represents a good predictive instrument for RC morbidity, identifying fragile pts at risk of post operative complications and their severity.

However, it doesn’t demonstrate good feasibility in identification of pts at risk of intraoperative complications and within 30 days of operation with necessity of hospital readmission.

Further analyses are necessary to confirm the data obtained from this preliminary study.

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