

P-POSSUM as a predictor of colorectal surgical mortality in elderly patients

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BACKGROUND:

The proportion of elderly surgical patients is rising. They must be considered as a different population.

Our aim was to evaluate the predictive value of P-POSSUM for colorectal surgical mortality in patients 80 or older.

METHODS:

Retrospective observational study. Patients with 80 years old or more who underwent colorectal surgery at our institution between 2008 and 2012 were included. Subgroup analysis was performed for malignant, urgent and elective surgery. Parametric tests were used.

RESULTS:

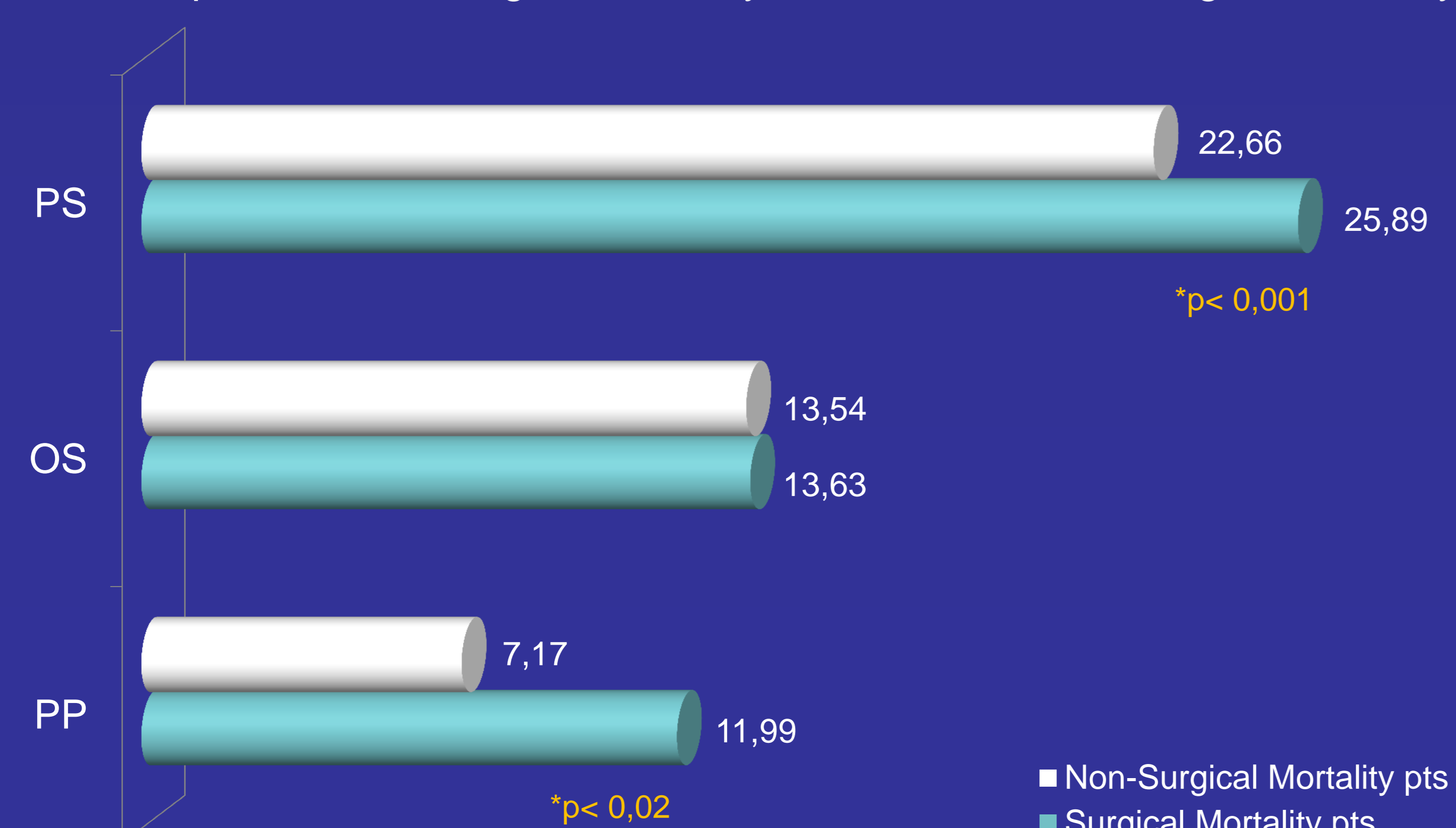
	OVERALL	ELECTIVE SURGERY	URGENT SURGERY	BENIGN DISEASE	MALIGNANT DISEASE
n	202	138	65	48	154
Age	84,27 ± 3,94	84,22 ± 3,94	84,35 ± 3,96	84,69 ± 3,97	84,12 ± 3,,93
Physiology Score (PS)	23,22 ± 5,09	22,45 ± 5,04	24,85 ± 4,83	23,84 ± 5,34	23,02 ± 5,01
Operative Score (OS)	13,55 ± 4,11	12,32 ± 3,38	16,17 ± 4,30	14,39 ± 3,85	13,01± 4,16
Predicted Mortality	n = 16,2 (8,01%)	n = 8,16 (5,91%)	n = 8,08 (12,4%)	n = 4,68 (9,57%)	n = 11,54 (7,50%)
Observed Mortality	n = 35 (17,3%)	n = 21 (15,2%)	n = 14 (21,5%)	n = 9 (18,8%)	n = 26 (16,9%)
Predicted / Observed Mortality	0,450	0,388	0,577	0,521	0,444

DISCUSSION:

- Predicted/observed mortality ratio was 0,45-0,58.
- PS and PP were higher among patients with surgical mortality.
- These results were also observed when subgroup analysis was done.

Graph 1 - Physiology Score (PS), Operative Score (OS) and P-POSSUM (PP) between patients with surgical mortality and those without surgical mortality.

p > 0,05



CONCLUSIONS:

- P-POSSUM underestimates surgical mortality of colorectal surgery in patients 80 years or older.
- Higher PS was associated with surgical mortality but OS was not. This was independent of subgroup analysis.