Aim: Aim of our study is to analysis of postoperative outcomes (30 days) after elective unilateral open anterior inguinal hernia repair and prove correlation to modified Kingsnorth (MK) score classification system.

Material and Methods: Prospective registered (NTC 04806828) study of all consecutive unilateral open anterior groin hernia repair performed at a University Hospital General Surgery Department from January 2019 to December 2020. Data was stored at National Spanish Groin Hernia Registry (EVEREG). All patients were preoperatively classified using MK score. Statistical analysis of postoperative complications and their relation to preoperative modified Kingsnorth scale was performed.

Results: 403 patients were included. 61% were performed as ambulatory surgery. 15.7% had more than 5-8 MK punctuation. A total of 62
patients had postoperative complications, 81% of all complications were classified as Clavien I. Higher Surgery duration was directly related to higher MK (Pearson’s correlation 0.291; \( P < 0.0001 \)).

Statistically significant relationship with the presence of higher rate of complications were a KN score of 5-8 (OR 2.7; 95% CI 1.07-4.82; \( P = 0.03 \)) whereas performance of surgery by an abdominal wall surgery specialist had less complications (OR 0.28; 95% CI 0.08-0.92; \( P = 0.03 \)).

Conclusions: MK classification predicts surgical wound complications on patients who undergo a primary unilateral inguinal hernia surgery. A KN score of 5-8 had a higher probability of wound complications. When surgery was performed by a specialist in abdominal wall surgery, less postoperative complications were observed.