

Predictors for duration of hospital stay after abdominal wall hernia repairs

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Background: to identify variables those predict length of hospital stay separately after groin, primary ventral and incisional hernias.

Methods: A total of 1170 groin, primary ventral, and incisional hernia repairs (n=959, 132, 79 respectively) and their peri-operative variables were analyzed. For each subgroup of hernia type, univariate analysis was performed. Multivariate logistic regression model was used to determine independent variables that predict length of hospital stay in each group of hernia.

Results: Out of 1170 repairs; 959 were inguinal, 132 were primary ventral repairs and 79 were incisional hernia repairs. Strangulation (p=0.021), ASA III-IV class (p<0.001), longer duration of surgery (p<0.001), systemic postoperative complications (p<0.001), and local postoperative complications (p<0.001) were associated with longer length of hospital stay in inguinal hernia repairs; type of repair procedure (p=0.028), longer duration of surgery (p<0.001), and systemic postoperative complications (p=0.006) were associated with longer length of hospital stay in ventral primary hernias repairs; ASA III-IV class (p=0.027) and longer duration of surgery (p=0.003) were associated with longer length of hospital stay in incisional hernia repairs.

Conclusions: Postoperative hospital stay can be predicted before the operation by evaluating certain factors related to the patient or procedure. Longer duration of surgery predict longer hospital stay in all types of ventral hernias where as strangulation, high ASA class, systemic-local postoperative complications, and type of repair procedures may predict longer length of hospital stay in different ventral hernia types.

Abbreviations: ASA: American Society of Anesthesiologists, LOHS: length of hospital stay, LOP: length of procedure, POC: postoperative complications.

Key words: length of hospital stay, operation time, inguinal hernia, primary ventral hernia, incisional hernia, hernia repair

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