

Biostatistics statement:

Statistical analysis was performed with SPSS version 20 (IBM, New York, USA). Using an independent *t* test, continuous variables showed baseline characteristics of subjects. A chi-square test for univariate associations was used, with a Fisher exact test for categorical variables in this analysis. Logistic regression analysis to assess the predictive factor for IBS and FD was used. A *p*-value of 0.05 was considered statistically significant. Each variable having a *p*-value < 0.20 in univariate analysis by binary logistic regression analysis model was entered into the multivariate analysis, with adjustments for age and sex.