Predictive validity of the S-STARTS composite score in athletes after shoulder stabilization surgery by Latarjet procedure: A preliminary study

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Introduction:
The Shoulder–SanTy Athletic Return To Sports (S-STARTS) composite score is based on outcome measures from five psychological and physical tests. This score was proposed to help the decision-making for returning to sport after shoulder stabilization surgery by Latarjet procedure. Although statistically validated, its validity to predict the return to sport remains to be determined. The aim of this study therefore was to assess the validity of the S-STARTS composite score to predict the athlete's ability to return to sport at 1-year postoperatively.
Methods:
Forty patients (age: 24.4 ± 6.5 years; height: 176.3 ± 8.1 cm; mass: 75.7 ± 14.8 kg); who performed S-STARTS at 4.8 ± 0.7 months after shoulder stabilization surgery by Latarjet procedure, answered yes or no to the question: "Are you currently practicing a sport?", by phone, at 1-year postoperatively. Receiver Operating Characteristic (ROC) curve, Area Under the Curve (AUC), specificity and sensibility were used for data analysis.
Results:
Thirty-four patients (85%) returned to sport at 1-year postoperatively. ROC curve (AUC=0.81; p=0.02) indicated that the best trade-off between sensitivity (77%) and specificity (83%) was found for a cut-off at 11.5 points.
Discussion:
These preliminary findings showed that the rate of patients returning to sport at 1-year postoperatively was similar to rates reported in the literature and the S-STARTS composite score presented an acceptable discrimination level. The sensitivity at 77% indicated a high probability to determine the true positives with respect to the false negatives, while the specificity at 83% indicated a high probability to determine the true negatives with respect to the false positives. The cut-off of 11.5 points for S-STARTS score may be used as a primary benchmark by sport coaches and clinicians to help the return to sport care after shoulder stabilization surgery by Latarjet procedure.