Vascular Medicine

DOES SIMULATION-BASED TRAINING IMPROVE THE PROFICIENCY OF BEGINNERS IN INTERVENTIONAL CARDIOLOGY? A STRATIFIED RANDOMIZED STUDY

Poster Contributions
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Methods: To evaluate the impact of simulation-based training for coronary interventions, a stratified randomized study was performed. 18 cardiology fellows with experience in diagnostic catheterizations, but not in interventional procedures were included. The simulation-based training group (S, n=9) received a 7 ½ hour curriculum based procedural training on three Virtual-Reality simulators: CathLabVR (CAE), VIST-C (Mentice) and AngioMentor Express (Simbionix). The control group (C, n=9) underwent education by lectures only. Pre- and post-evaluation took place in a cath lab. Each participant performed a simple (pre) and a more complex (post) coronary intervention on a pulsatile heart model (CoroSim™, Mecora Germany). All procedures were captured on video and, thereafter, analyzed by three blinded experienced interventionalists. To assess the proficiency of the participants, a score consisting of 14 single items was determined (five-level Likert scale, maximum score of 70 points).

Results: For comparable baseline values (S: 47.2±8.5 C: 50.2±4.5) the proficiency score increased by 5.8 points in group S and decreased by 6.7 in group C (p=0.003, ANCOVA, dependent variable = change in overall proficiency score; group as factor; baseline score as covariate).

Conclusion: Curriculum based simulation training improves the proficiency of cardiology fellows in coronary interventions.