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Título	Association of Preoperative Parameters on Intraoperative Indicators in Myocardial Revascularization Surgery Insights from a Targeted Complex Network Model
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Resumo	<p>Background/Objectives: Myocardial revascularization surgery (MR) is routinely performed in hospitals. However, there is a lack of an algorithm in the scientific literature aimed at predicting intraoperative parameters, such as total surgery time (TST) and cardiopulmonary bypass time (CBT), based on preoperative MR parameters. Therefore, the objective of the present study is to apply a complex network model to predict parameters associated with TST and CBT. Methods: Retrospective data from 124 patients who underwent MR, including medical history, vital signs, and laboratory/biochemical tests, were used, with 30 patients contributing to the construction of the network. Three complex networks were created to study the targets (TST and CBT). The Eigenvector metric was employed to investigate the parameters most relevant to these targets. Results: Regardless of the target, parameters derived from the blood gas analysis followed by erythrogram displayed greater relevance according to the eigenvector metric. However, for TST, the most prominent parameter was Red Blood Cells, while, for CBT, Diastolic Blood Pressure emerged as the most important variable. Conclusion: The targeted complex network model revealed that pulmonary, hemodynamic, and perfusion factors are relevant to the intraoperative parameters of MR. The networks also demonstrated that, although the targets show significant correlation with each other (TST and CBT-<math>r = 0.76</math>; <math>p = 0.000</math>), the importance of the parameters in the networks does not follow the same order. This reiterates the strength of the network in revealing specific information when a particular target is selected.</p>
Fomento	-