

ABSTRACT
**The Relationship between Groin Complications
and Patient's Characteristics Post Coronary
Intervention**

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Introduction: Each year more than 360,000 people die due to coronary artery disease (CAD), which remains the most common single cause of death worldwide. The treatment of choice for CAD is percutaneous coronary intervention (PCI). Although PCI is considered the golden standard for CAD management, it is not free from potential complications that have negative consequences on the patients' health outcomes. The most frequent complications are vascular access complications. These complications are associated with increased morbidity, mortality, length of stay in the hospital and health care costs.

Aim: The purposes of this study were: to identify the relationship between patient characteristics and the development of groin complications post PCI procedure, to determine the incidence rate and the risk factors of the development of groin complications post PCI procedure in primary cardiac catheterization laboratories services in Jordan.

Methodology: This was a prospective observational study with a consecutive sample of 300 patients post PCI procedure. Data were collected from the cardiac health care center by pre-structured observational sheet. Any groin complication developed within the first 24 hours post procedure was recorded. All correlated variables were analyzed using hierarchical logistic regression model.

Result: The sample included 237 (79%) men and 63 (21%) women with a mean age of 57.46 ± 10.51 years. A total of 114 patients (38%) developed one or more groin complications. Ecchymosis was the most frequent groin complication; 102 (34%). Multivariate analysis revealed four predictors of groin complications development. These predictors were female gender, age more than 65 years, location of puncture, and a systolic blood pressure before sheath removal that is more than 180 mmHg.

Conclusion: Different factors can increase the risk of groin complications

development post PCI. Nurses are the front line to detect such complications. Identification of high-risk groups (i.e. females) by nurses might help in the application of different methods to control the development of these complications. It is highly recommended to repeat this study in different settings, and to increase the groin follow up to more than 24 hours.

Key words: Groin complication, percutaneous coronary intervention, femoral access site, and Jordan.