

# **EFFECTS OF KNEE IMMOBILIZER VERSUS SANDBAG ON BLEEDING AND COMFORT AMONG POST-CORONARY ANGIOGRAM PATIENTS**

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**Principal Investigators:** Michelle Gaspar, Jennifer Salas

**Secondary Investigators:** Julius Villanueva, Archie Michael Rey Apigo, Lera Salvatierra, Reyrita Katrina Tariga

**Advisers:** Paula Joy C. Ison, Christian C. Lamén, Lee B. Banguilan, Eva Teodora T. Sison, Westphalia G. Patino, Carmencita A. Lingan, Dr. Maria Linda G. Buhat

## **ABSTRACT**

### **Background of the study**

Coronary angiography is an invasive procedure for identifying the presence or absence of arterial narrowing to patients with coronary artery disease. Femoral arteriotomy is the most common approach used to introduce the catheter in angiography. The removal of catheter predispose post-coronary angiogram patients to bleeding. Manual compression for 10-15 minutes, followed by application of a pressure dressing and promoting bed rest is done to establish initial hemostasis. Studies showed activity or plain hip flexion post-coronary intervention increases arterial pressure, increasing the risk for bleeding. Hence providing other hemostatic technique, such as the use of sand bag to immobilize the affected leg was necessary to stabilize the punctured site. However, immobilization and prolonged bed rest are associated with discomforts.

### **Objectives**

The goal of this study is to compare the effectiveness of sand bag versus the knee immobilizer in preventing the incidence of bleeding and in reducing the discomfort of immobilization among post coronary angiogram patients in the Non- Critical Care Units and Cardiovascular Laboratory of the Philippine Heart Center.

### **Methods**

This study utilized the randomized controlled trial as study design. A total number of 120 patients passed the inclusion and exclusion criteria. Study participants were randomly assigned into two groups with 60 participants per group. The study group utilized the knee immobilizer while the control group used sandbag. The Modified Bleeding Monitoring Tool was used to measure bleeding which was rated by the evaluating nurse. The Modified Comfort Questionnaire is a self-rating scale utilized by the patients. It was used to measure discomfort. Mann Whitney-U Test was the statistical test used to compare the scores of the two groups.

### **Results**

Findings showed there is no significant difference between the knee immobilizer and the sand bag in the incidence of bleeding among post-coronary angiogram patients. A highly significant difference however was obtained in the measurement of discomfort, favoring the use of knee immobilizer.

**Keywords:** knee immobilizer, sandbag, bleeding, comfort, coronary angiogram patients

