

## Prediction of coronary artery disease with the assessment tool of gender, age and type of chest-pain

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This predictive study aims to determine the correlation between factors such as gender, age, type of chest-pain and Coronary Artery Disease (CAD), and to examine the predictability of CAD using the Diamond-Forrester model. The samples were 113 patients who were diagnosed with conditions at risk cardiovascular disease and required a Coronary Angiogram (CAG) treatment in the tertiary hospital.

The instruments were: 1) the assessment of personal data, 2) Thai short-version of the Rose Angina questionnaire (content validity 0.91 and reliability were 0.80), 3) Diamond-Forrester model and 4) the result of Coronary Angiogram (CAG). Data were analyzed using statistical Point biserial and Pearson correlation between gender, age, type of chest pain and coronary artery disease. Logistic model for case was used to determine the sensitivity and specificity from the Diamond-Forrester model.

The 113 patients with Coronary Artery Disease consisted of 66 males (58.34%) and 47 females (41.6%), with mean age group of  $64.25 \pm 10.61$  (65-75 years). Thai short-version of the Rose angina questionnaire found that age and type of chest pain had a statistically significant effect on CAD ( $p < .05$ ), but gender did not. The sensitivity and specificity of the Diamond-Forrester model were 95.23% (60 out of 63 patients), and 2.00% (1 out of 50 patients) respectively. Positive predictive value (PPV) was 55.05%, Negative predictive value (NPV) was 25.00%, and Accuracy = 55.98%

In conclusion, the assessment tool showed very high sensitivity (95.23%) and *the prediction of coronary artery disease and low specificity* (2.00%) in the non-coronary artery disease. The accuracy of CAD prediction was essential for healthcare providers to accurately diagnose CAD, identify the severity of condition, and promptly treat CAD patients.

**Key word** : Coronary Artery Disease/ Prediction / Chest Pain/Short version Rose angina questionnaire

### Biography:

Pachanat Tantikosoom is a lecturer at the Faculty of Nursing, Chulalongkorn University, Thailand. She obtained a doctoral degree (Ph.D) in nursing sciences in 2012. She was a visiting scholar in the school of nursing, University of Minnesota, USA in 2009, and she had served as Adjunct Faculty, in the school of nursing, University of Minnesota, USA from 2009 to 2012. She had to present her study at Seoul, Korea in 2011. Currently, she lectures in the field of adult nursing. Her expertise and research interests involve patients with coronary artery disease (CAD), patients with orthopedic and Complementary care.