ABSTRACT

THE ESTIMATION OF BODY STATURE BASED ON PERCUTANEOUS TIBIAL AND RADIAL LENGTH IN MALES CHINESE ETHNIC AT SMAK St. HENDRIKUS SURABAYA

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Body stature is one of important factors in identification of an unknown body, especially in forensic medicine and anthropology fields when someone must be able to estimate the actual body stature by only using one or several isolated parts of the body. In this study, the correlation between radial and tibial length to body stature will be known, along with the production of estimation formula of body stature based on the length of each bone or two bones at once.

This is a cross sectional study. This study was conducted on 68 males samples (15-17 years old) of Chinese ethnic at SMAK St. Hendrikus Surabaya. The measured data body stature, tibial length, and radial length. Data were normally distributed and were analyzed using Pearson correlation test, with significant value less than 0,05 ($p<0,05$).

Based on the analysis, we found significant positive correlation between tibial length and body stature, radial length and body stature, and between these two bones (radial and tibial) and body stature. Linear regression analysis was conducted to obtain estimation formula for body stature. The tibial length accounted 21,9 % of body stature, the radial length accounted 42,3 % of body stature, the tibial and radial lengths together accounted 46,3 % of body stature, and the rest is influenced by other factors.This estimation formula will be helpful to estimate body stature from victims or deceased body when only tibial and radial bones are available or only one of them.

Keywords: Estimation, body stature, tibial, radial