Background: Panoramic radiographic was a specialized extraoral radiographic technique used to examine the upper and the lower jaws in a single film. Panoramic radiographs could be used to evaluate the mandibular change. The antegonial depth was a distance that formed from antegonial notch that drawn perpendicular to the line contact with the outer notch from ramus and body of mandible. Previous researchers have revealed that the antegonial depth could be influenced by sex and race. So far, the antegonial depth did not studied yet in Indonesia.

Purpose: The aim of this study was to know the difference of the antegonial depth of Javanese male and female.

Method: Panoramic radiographs of thirty Javanese patients (15 males and 15 females aged 20-30 years old) randomly chosen from Parahita Diagnostic Center were evaluated. The antegonial depth was measured with calliper to an accuracy of 0.05 mm. Measurements were made by three observers.

Results: The mean of the antegonial depth was 3.09 mm in males and 2.09 mm in females. This study showed there was a difference of the antegonial depth (p<0.05) between Javanese male and female.

Conclusion: The Javanese male had a greater antegonial depth than Javanese female.

Keywords: antegonial depth, sex, panoramic radiograph, Javanese