

THE SHAPE, APPEARANCE, AND POSITION OF  
THE MENTAL FORAMEN ON PANORAMIC  
RADIOGRAPH IN A SELECTED BAGHDADI  
SUBJECTS

**A THESIS**

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# Summary

Studying the appearance and location of the mental foramen is of importance specially in the last few years due to the recent development of the mandibular implant techniques and increasing frequency of the surgical procedures near the mental foramen , such as endodontic treatment , periodontal surgery and preprosthetic surgery.

Panoramic radiographs of 155 selected Baghdadi subjects 80 females and 75 males with age range of 25-30 years were made and viewed for the shape, position, and appearance of the mental foramen relation to the mandibular canal. The unidentified was 15 radiographs (9.6%). The mental foramen was identified in 140 panoramic radiographs (90.4%). The most common shape of the mental foramen was the round (36.1%), followed by the oval (35.3%) and irregular (28.5%) . It was found that the shape of the mental foramen symmetrical in 80% of the total sample in both sides.

The most common appearance of the mental foramen in relation to the mandibular canal was the separated (52.5%), followed by the continuous (32.15%), and the diffuse (15.35%). It was found that the appearance of the mental foramen was symmetrical in 84.3% of the total sample in both sides .

The most frequent position of the mental foramen was between the first and the second premolars (56.5%), followed by the apical to the second premolar (34.3%), the distal to the second premolar (6.4%)and

below the first premolar (2.8%) . It was found that the position of the mental foramen symmetrical 78.57% in both sides for the total sample.

The vertical position of the mental foramen for the sample studied was expressed by the ratio of bone above the mental foramen to the bone below it and it was (1.47). Also the vertical position of the mental foramen was identified for the right and left sides , for females and males , for age groups , and according to the appearance of the mental foramen on panoramic radiographs.

Statistical analysis of data was conducted and the mean ratio of the vertical position and the standard deviation were calculated for all groups of the 140 radiographs.

Student t-test was applied to the results of the vertical position of the mental foramen on panoramic radiographs and found there were no linear relation in the mean ratio of the vertical position between the right and the left sides for the whole sample there were no linear relationship between the vertical position for the females and males, also the same result was found for the appearance of the mental foramen on panoramic radiographs.

The panoramic radiographs were investigated for the position of the mental foramen in relation to the mandibular apices ,the most frequent position was found below the level of premolar apices (55.7%) and followed by at the level of the apices (35.7%) and the above the level of the apices (8.6%).