

Anatomic study of the distance between the lower margin of the mandible and the marginal mandibular branch of the facial nerve: A systematic review [Estudio anatómico de la distancia entre el margen mandibular y la rama marginal mandibular del nervio facial: Una revisión sistemática]

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The marginal mandibular branch of the facial nerve (MMB) has a significant variation in relation to the lower border of the mandible (LBM). That is why it is important to know its topographical description to prevent damage in submandibular surgical procedures. The objective of this study was to determine the distance between the MMB and LBM based on descriptive studies carried out on human corpses and surgical patients. A systematic review of literature in MEDLINE, "Science Citation Index Expanded" of Web of Science (ISI) databases and manual search was performed. The articles with number of samples greater than or equal to 10 facial samples and recording of measurements between the MMB and the LBM or Gonion were selected. From the selected articles, the authors registered year of publication, country of origin, number of samples, sample type (fresh, embalmed body/fixed cadavers or surgical patient), distribution percentage of the MMB in relation to LBM, average and maximum distance between MMB and LBM or Gonion. The results were presented in tables with descriptive statistic. Seventeen articles describing measurements of the distance between MMB and the lower border of the mandible carried out in cadavers and patients were selected. In these articles a total of 1,408 samples were dissected. The maximum distance observed was 4.01 cm (mean \pm SD 1.64 \pm 0.92 cm, Min= 0.69; Max= 4.01). Several reports suggest that an incision 2 cm below the lower border of the mandible would be enough to avoid damage of the MMB. However, according to the maximal distances registered, such an incision might involve

risk for the MMB. For this reason, we propose that the MMB of facial nerve should be at least 4 cm below the lower border of the mandible.

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