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The influence of the masticatory hypofunction on the craniofacial growth and development in rats.

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In the present study, one masticatory hypofunction group and one normal function group were comprised of growing Wistar albino rats. The influence of the masticatory hypofunction on the growth and development of the craniofacial skeleton in rats was examined. The normal function group received the diet in the form of hard pellets, but the hypofunction group was fed powdered food. To avoid growth reduction because of nutritional deficiency, the animals were fed ad libitum, diet and water. At the end of the experimental period, the 90-day-old adult animals were killed and the direct anthropometric cranial, maxillary, and mandibular measurements were made on the skulls. The significant results can be summarized as follows: Total skull length, total anterior face height, lower anterior face height, ramus mandibula height, corpus mandibula height, premaxillary length, and maxillary width have been reduced but foramen incisivum width has been increased. This study showed that there is no significant effect of the masticatory hypofunction on the cranial growth and development in the growing rats, but that masticatory hypofunction affected the growth and development of the maxillofacial skeleton.

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