Abstract

In material comprising 2116 (1232 ♂♂ and 884 ♀♀) specimens of *Cricetus cricetus* caught a) in eastern Slovakia during a population explosion (1971) and in the following two post-gradational years (1972 and 1973) and b) in central Moravia (1973) during a period of high population density, the various stages of destruction of the bone tissue of the pars alveolaris mandibulae and the processus alveolaris maxillae, due to periodontal disease were studied.

Special attention was paid to the relation between the number of cases of periodontal disease of *Cricetus cricetus* at the time of capture and the population density to weight classes, size classes of the condylobasal length and age classes.

The clinical picture of periodontal disease and the rate of progression of this disease of the periodontium in *Cricetus cricetus* was also determined.

Periodontal disease during a population explosion and in the subsequent period has received little attention in the past.

Cricetus cricetus (like other species of the *Cricetidae*) could be used as a laboratory animal suitable for experimental periodontology.

Contents

Introduction

Man *(Homo sapiens)*, one of the primates,* is not the only species to be affected by periodontal disease. It also occurs in many other orders of mammals, such as the *Insectivora* (the species *Erinaceus europaeus* and *E. concolor*), the *Carnivora* (the genus *Canis*), the *Artiodactyla-Nonruminantia* (genus *Sus*), and the *Artiodactyla-Ruminantia* (genera *Cervus, Dama* and *Capreolus*), as shown by numerous published reports, such as Zuhrt (1958), Škoud-

* Škach & al. (1984) write that periodontal disease is the most frequent disease of the attachment apparatus of man's teeth in all continents. About 80 % of children suffer from periodontitis marginalis. More serious damage to the periodontium may occur during the teens, and periodontal atrophy is found in 40—70 % of humans at the age of 35—44 years. Numerous problems of periodontal disease have yet to be satisfactorily elucidated.