A new Colhuehuapian (early Miocene) caviomorph rodent from Patagonia and preliminary considerations on the early evolution of the superfamily *Octodontoidea*

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Octodontoidea includes the most diverse superfamily of South American rodents in terms of morphology, taxonomy and ecology. The morphological and taxonomic diversity are evident since their earliest records (late Eocene?-early Oligocene). Nowadays there are two major lineages, the Echimyidae (including Myocastor) and the Octodontidae. Nevertheless, the phylogenetic relationships of these two lineages with the most ancient members of the superfamily are not clear and need to be revised. In this contribution a new octodontoid rodent from Colhuehuapian levels (early Miocene) of the Trelew Member (Sarmiento Formation) at Gaiman, Chubut Province, Argentina, is described. It is known through teeth and partially preserved jaws. This new taxon is characterized by having brachydont cheek teeth and the retention of DP4/dp4; it shares with Caviocricetus (Colhuehuapian) the general morphology of the upper cheek teeth and the terraced occlusal surfaces. The development of the metalophulid II in the lower cheek teeth and the pentalophodont premolar morphology are similar to that of Prospaniomys (Colhuehuapian). A cladistic analysis was performed in order to evaluate the relationships of the new taxon; we used 22 taxa and 39 dental and mandibular characters, since they are the only ones that can be tested in the new taxon. The results indicate this new specimen forms, with Caviocricetus and Plesiacarechimys (Colloncuran, middle Miocene), the stem group of a clade constituted by the acaremyids (+ Acarechimys), and by the fossil echimyids traditionally included within the subfamily Adelphomyinae. Moreover, we verified a variety of evolutionary lines within the superfamily that are not directly related with modern octodontoids; some of these lineages would have diverged in pre-Deseadan times (Oligocene) and persisted until the middle Miocene, retaining a generalized dental morphology for the superfamily.

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