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PALEONEUROLOGY OF *YACARERANI BOLIVIENSIS* (NOTOSUCHIA) FROM THE CRETACEOUS OF BOLIVIA.

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The neuroanatomy of notosuchians is poorly understood, known only in four taxa so far. Here, we present the first cranial endocast of *Yacarerani boliviensis* – a derived notosuchian from the Cajones Formation, Upper Cretaceous of Bolivia – based on CT scans. The skull of the type species (MNK-PAL.5063) is complete and well preserved, with a slight lateroventral deformation. The cranial endocast was reconstructed almost complete. It is tubular and sigmoidal-shaped in lateral view, with poorly marked angles between forebrain, midbrain and hindbrain. The dorsal longitudinal venous sinus presents a large dorsal expansion, similar to that observed in *Araripesuchus wegeneri*. The olfactory bulbs of *Yacarerani* are well defined and oval-shaped, slightly divergent from the midline; the olfactory tract is relatively short and slender when compared to other mesoencyodonts. The cerebral hemispheres are markedly expanded laterally. The Trigeminal Ganglion is relatively large, contrasting with the condition observed in the peirosaurid *Rukwasuchus yajabaliyekundu* and the basal notosuchian *Simosuchus clarki*. Comparisons with other known notosuchian cranial endocasts indicate similitude of the general morphology of *Yacarerani* with *Anatosuchus minor* and *Araripesuchus wegeneri*. Preliminary paleobiological inferences from the neuroanatomy of *Yacarerani* suggest great reliance on the sense of the smell for this taxon as in other notosuchians (e.g. *Wargosuchus australis*, *Simosuchus*, *Rukwasuchus*).

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Great work! I'm looking forward to the paper.

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