

An anatomical and embryological study of the clavicle in cats (*Felis domesticus*) and sheep (*Ovis aries*) during the prenatal period

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The prenatal development of the clavicular area was studied in two species: the domesticated sheep, which lacks a clavicle, and the cat, with a nonfunctional, rudimentary clavicle. A morphological and computerized morphometric study of the clavicle was performed in 18 cat embryos between 25 and 48 days of gestation, and in 12 sheep embryos of 37-45 days. One group of embryos was processed with double staining in toto according to Hanken and Wassersug in 1981. The other group was examined by histological techniques: hematoxylin-eosin-Alcian blue and picosirius. In both species, clavicular ossification is delayed (27% of gestation time elapsed in sheep and 53% in cats) compared to 16% in humans. Histological and morphological differences in shape and length of the clavicle were observed in both species. The clavicle is transient in sheep, whereas in the cat it persists with little change. In neither species does secondary cartilage develop. In cats, the periosteum is well developed with