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Abstract

English bulldogs have been reported to have a high incidence of dystocia and caesarean section is often performed electively in this breed. A narrow pelvic canal is the major maternal factor contributing to obstructive dystocia. The objective of this cross-sectional study was to assess the pelvic dimensions of 40 clinically healthy English bulldogs using computed tomography pelvimetry. A control group consisting of 30 non-brachycephalic dogs that underwent pelvic computed tomography was retrospectively collected from the patient archive system. Univariate analysis of variance was used to compare computed tomography pelvimetry of both groups and the effects of weight and gender on the measurements. In addition, ratios were obtained to address pelvic shape differences. A significantly (P= 0.00) smaller pelvic size was found in English bulldogs compared to the control group for all computed tomography measurements: width and length of the pelvis, pelvic inlet and caudal pelvic aperture. The pelvic conformation was significantly different between the groups, English bulldogs had an overall shorter pelvis and pelvic canal and a narrower pelvic outlet. Weight had a significant effect on all measurements whereas gender that only had a significant effect on some (4/11) pelvic dimensions. Our findings prove that English bulldogs have a generally reduced pelvic size as well as a shorter pelvis and narrower pelvic