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Long term ovarian ultrasonography study in killer whales

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Daily, alternated-day or bi-weekly ovarian ultrasounds (General Electric – Logiq e BT9, BT12 & Logiq V2 with a 2,5-5MHz convex probe) have been performed for at least 7 years in 3 female killer whales (*Orcinus orca*) kept at the Loro Parque facility in Tenerife. To render the study possible, 12 killer whale trainers were taught how to recognize killer whale’s ovaries by ultrasound and record the data. Since 2012, about 4500 sessions with over 32.000 ovarian ultrasound videos have been obtained. The review of the data has permitted to identify antral follicles of much smaller sizes than previously described¹ and the confirmation of their presence in ovaries both with or without Regumate®. Once growing follicles were identified they were tracked daily throughout their entire cycle and up to 3 times per day allowing for a detailed visual follow-up. Corpus albicans’ scars could consistently be seen long-term post ovulation, a structure not yet reported in marine mammals’ ultrasounds. In this study, the following irregularities and/or pathologies have been identified post Regumate® removal: shorter cycles, longer cycles, delayed cycles, prolonged anoestrus (one animal), development of follicular cyst, retained corpus luteum and spontaneous galactorrhea. Future research will correlate endocrine data from daily urine samples taken during the time lapse of this study.