

LACTATIONAL OESTRUS IN SOWS IN THE INTERMITTENT SUCKLING MODEL: PREGNANCY RATE AND EARLY EMBRYONIC SURVIVAL

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Intermittent Suckling (IS) can induce oestrus and ovulation during lactation in sows. This study examines early embryonic survival following a lactational oestrus induced by IS. Multiparous “TOPIGS 40” sows were allocated to a Control group (C) weaned at D21 of lactation (n=23), or to one of two IS groups. Sows and piglets were separated for 12 h and reunited for 12 h (IS12; n=14) or separated for 6 h and reunited for 6 h (IS6; n=13) continuously from D14 of lactation until D23 after ovulation. Sows were inseminated on each day of oestrus and slaughtered at D23 after ovulation. As a result of non-ovulating (n=3) and ill sows (n=1), 17 C, 13 IS12, and 9 IS6 sows remained for analyses at D23 after ovulation. A sow was considered pregnant at D23 when at least one vital embryo was present. At D23 94% C, 77% IS12 and 78% IS6 sows were pregnant ($P>0.10$). No differences were found in ovulation rate or early embryonic survival ($62\pm6\%$ vs $58\pm6\%$ vs $57\pm7\%$; $LSM\pm SE$) between C, IS12 and IS6. Placental length (cm) of IS6 (15.9 ± 1.1) was shorter than of IS12 (19.7 ± 1.1 ; $P=0.08$) and C (20.4 ± 0.9 ; $P<0.05$). Placental weight did not differ between treatments. Implantation area (cm²) was larger for C (121.5 ± 6.5) than for IS6 (92.1 ± 8.5 ; $P<0.05$) and IS12 was intermediate (107.4 ± 8.0). Thus, induction of lactational oestrus by IS does not seem to affect pregnancy rate at D23 or early embryonic survival, but especially IS6 seems to affect some placental and implantation characteristics, which may affect the later course of pregnancy.