

Randomized comparison of different ovarian stimulation regimens for assisted reproductive technology in baboons (*Papioanubis*)

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Abstract

Objective To compare different methods of ovarian stimulation (OS) for assisted reproductive technology in baboons. **Design** Prospective randomized study. **Setting** Institute of primate research. **Animal(s)** Baboons (n = 10) were randomized into two groups (of five animals each) during three different cycles to compare six protocols of OS. **Intervention(s)** Cycle 1: clomiphene citrate (CC) alone (group CC) versus CC and GnRH agonist (group CC-Ag); cycle 2: recombinant gonadotropins (GON) without GnRH agonist (group GON) versus GON and depot GnRH agonist (group GON-AgDepo-1); cycle 3: GON and depot GnRH agonist (group GON-AgDepo-2) versus GON and daily GnRH agonist in a classic long protocol (group GON-Ag). Oocyte aspiration was performed 34–36 hours after injecting 5,000 IU rhCG, followed by fertilization via intracytoplasmic sperm injection (ICSI). **Main Outcome Measure(s)** Number and quality of oocytes retrieved and their fertilization rate. **Result(s)** More metaphase II (MII) oocytes were retrieved using the GON-AgDepo-1 (n = 12; 64% MII), GON-AgDepo-2 (n = 9; 79% MII), GON-Ag (n = 16; 88% MII), and GON (n = 6; 59% MII) protocols compared with the CC (n = 9; 15% MII) and CC-Ag (n = 14; 20% MII) protocols. Fertilization by ICSI varied between 43% and 71%. **Conclusion(s)** In baboons, long and depot protocols yield similar numbers of MII oocytes; however, depot protocol may be preferable because only one injection of GnRH agonist is needed