Veterinarians use non-steroidal anti-inflammatory drugs (NSAIDs) to treat a variety of conditions in horses. However, results from two new studies show that these drugs can negatively affect a mare's reproductive activity. In the next study Blanchard described, Brazilian researchers evaluated how two NSAIDs affected mares' development of pre-ovulatory follicles. They studied 11 mares over three consecutive estrous cycles: the first cycle served as the control, on the second cycle mares received a standard therapeutic dose of phenylbutazone (often referred to as Bute), and in the third a standard therapeutic dose of meloxicam (Metacam, a COX-2 inhibitor available for use in horses in Europe).

The research team found that all mares ovulated as expected during the control cycle, while only one and two mares ovulated during the meloxicam and phenylbutazone cycles, respectively. With both NSAID treatments the researchers saw hemorrhagic anovulatory follicles (follicles that didn't release eggs, and so cannot result in pregnancy) on ultrasound. In conclusion, "administration of NSAIDs may lead to formation of these hemorrhagic anovulatory follicles," said Blanchard.

He also pointed out that in studies on lab animals, women, and some horses, the timing and dose of these drugs seem to affect the development of the anovulatory structures. "Whether stopping administration of NSAIDs during estrus would avoid this potential problem has not been studied," he said.