Midazolam, an imidazobenzodiazepine, is used as a pre-anesthetic, with good anxiolytic properties. Low doses of midazolam (20-25mg/horse) have been incorporated into the management of low libido and fractious stallions. It is unknown how the drug benefits stallions, however, its use is becoming more common when stallions presented for mating/semen collection refuse to mount the phantom or a receptive estrus mare. Reasons for this refusal can be multifactorial, and may have challenging etiologies. Here we describe the use of midazolam to enhance mating behavior in a six-year-old stallion presented for semen collection. Since this horse was raised as an orphan and had received very little handling, the horse received reconditioning behavior outside the breeding shed during his stay. Upon arrival, he was given six 15min-training sessions on a phantom in the presence of an estrous mare. During the first session the stallion exteriorized the penis, but never tried to mount the mare or phantom. In the afternoon, he allowed washing of his penis, but did not mount the mare or phantom despite strong encouragement. The next day the stallion was teased with the mare wearing breeding hobbles, and despite a full erection, the stallion did not mount. The stallion was given 25 mg of midazolam intravenously, and five minutes later re-introduced to the mare, his penis was washed, and a successful ejaculate (8.4x10⁹ sperm) was obtained using Missouri model artificial vagina. A second ejaculate (4x10⁹ sperm) was obtained one-hour later; this time the stallion rapidly achieved an erection and mounted the mare on one jump. Both ejaculates were extended and combined to breed the mare. Administration of midazolam enhanced copulatory behavior on this fractious stallion. It is unclear whether the horse would have mounted without the use of midazolam, but based on his demeanor, he probably would have required several more training sessions to achieve a semen collection.

Reference