

Four healthy canine litters from sperm retrieved from urine after retrograde ejaculation

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Retrograde ejaculation is a medical condition in which semen enters urinary bladder instead of traveling through the urethra after ejaculation. In some cases, a limited amount of semen appears in the ejaculate. Complete retrograde ejaculation causes male infertility. A 6 year old Portuguese Water Dog male was presented for fertility assessment. After siring a few successful litters, he became infertile. On clinical and neurological examination, no abnormalities were noticed. There was no history of trauma or any surgical procedure. Good libido was observed during the semen collection, but only 0.2 ml of semen was obtained with really low sperm concentration ($15 \times 10^6/\text{ml}$), with 80% progressively motile sperm. Following the second semen collection, urine was obtained via cystocentesis. Urinalysis after ejaculation revealed a total of 640 million sperm with 4% motility. Treatment with phenylpropanolamine for 7 days slightly increased ejaculate volume (first semen collection 0.5 ml, second semen collection 0.4 ml). Since number of sperm was too low for insemination ($48 \times 10^6/\text{ml}$ and $53 \times 10^6/\text{ml}$, respectively), a decision was made to retrieve sperm from urine. The dog was given 650 mg of sodium bicarbonate, twice 12 hours apart, prior to semen collection in order to alkalize his urine. After centrifugation of the urine and washing the precipitate, extracted sperm were used for transcervical insemination in 2 bitches (both became pregnant). The procedure was repeated twice in 3 months; 3 more bitches were inseminated and 2 became pregnant.

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