



They Can't Use Condoms ...

But they can get shots. Are injections the future of pet sterilization?

BY CATHERINE MULLIN, V.M.D.

Those of us involved in animal sheltering all dream of a world where shelters are not overwhelmed with unwanted dogs or cringing at the thought of yet another "kitten season." For years, there have been hopeful murmurs about the potential for nonsurgical sterilization to make a huge dent in animal populations, but the drugs never seem to hit the market.

In November, however, I attended the Alliance for Contraception in Cats and Dogs' Third International Symposium on Non-Surgical Contraceptive Methods of Pet Population Control, and the information and work presented there made it seem like these murmurs may grow to a roar of excitement—though the question of when still remains.

Several products are in the final stages of safety/effectiveness research and the government approval process. GonaCon®, a new contraceptive vaccine, may soon be on the market for use on white-tailed deer. In preliminary studies, it worked in two-thirds of female cats for more than 30 months. It has a wide safety margin in many species, and researchers are now testing its effectiveness in female and male dogs. This vaccine essentially stimulates the animal's body to make antibodies against a reproductive hormone, which then decreases levels of sex hormones (estrogen, progesterone, and testosterone), making the animal sterile. The benefits are ease of administration (no sedation is necessary to give an injection) and its predicted low cost.

A company called SenesTech® is developing a chemical treatment that causes mammalian ovaries to become nonfunctional; the substance essentially brings

about the onset of menopause—or should we call it catopause and dogopause?—in female animals. Studies on mice have been very promising. Although the treatment currently requires several injections to be fully effective, the company hopes the drug can be formulated into a one-shot delivery system. It offers permanent sterility in female animals; preliminary studies have shown that it is effective and safe in dogs.

In Europe, a contraceptive implant called Gonazon® is already on the market. This implant contains a hormone that causes a decrease in sex hormones; the effect is technically reversible once the implant is removed. It has been shown to be effective in dogs for up to one year and is safe to re-implant for long-term fertility control. Although this may not be the best method of sterilization for shelter dogs, it does seem to be effective in cats for up to three years. The potential this technology shows for providing easier cat sterilization is intriguing.

All of these new technologies are closer to U.S. availability than ever before. The process of getting them approved is cumbersome, however, and many obstacles still need to be overcome. For technologies intended for use on feral or other stray animals, the biggest challenges are cost and one-shot effectiveness; a method that requires repeated follow-ups will probably not be practical for feral cat control. Coordinators of trap-neuter-return programs will also need to consider how to mark sterilized cats. The current method is through ear-tipping; this requires sedation, which now occurs while the animal is being surgically neutered. If injection or implantation is phased in, trapped cats will still need to be sedated



for ear-tipping—or a new method of marking sterilized animals will be needed.

There probably will never be one "magic bullet" for sterilizing pets. Dogs and cats are tremendously different with respect to both their biology and their social structures. Differences also exist between the needs of owned pet dogs and cats and feral or stray populations; feral animals will require not just a one-shot method but a method that works on females. As we examine the efficacy of nonsurgical solutions, it's also worth considering the health and behavioral benefits that come with surgical sterilization: Are they matched by the newer technologies?

These new technologies will probably have the greatest effect on shelter populations when targeted toward large populations of stray animals or toward those animals owned by people living in underserved communities such as Native American reservations. There is a huge need to make sterilization of large numbers of stray cats easier and cheaper. Until the new technology is perfected, traditional surgery may still be the gold standard for many dogs and cats in shelters.

Stay tuned for more news about nonsurgical contraception methods in the coming year; you can read more and keep track of new developments at the Alliance for Contraception in Cats and Dogs' website, www.acc-d.org. **AS**

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