Dam's Lack of Milk Is Rare, but Likely Genetic

By Susan Chaney
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It's a good thing that agalactia, the lack of milk in a dam, is a "really uncommon" condition in healthy dogs because "sadly, there's not very much information about it," says Margret L. Casal, D.V.M., Ph.D., an associate professor at the University of Pennsylvania School of Veterinary Medicine in Philadelphia. "There's a lot more information about it in people than there is in dogs," she says.

In fact, agalactia is less common than mastitis, a bacterial infection of the mammary glands, or hypocalcemia, sometimes called "eclampsia" or "milk fever," a deficiency of calcium in the dam.

But it does happen. The reasons behind it have not been scientifically proven, but according to Casal, who specializes in veterinary genetics and reproduction, it appears that genetics is likely the key player.

If a bitch's mammary glands don't change significantly over the course of the pregnancy, she may not have enough milk for her puppies when they're born. Photo © Can Stock Photo.

Agalactia is technically the lack of or poor milk production, but the term is sometimes used to describe a very different situation in which the dam has plenty of milk, but it just doesn't release or "let down" after whelping.

One behavioral issue can lead to poor milk production—when the momma dog doesn't take care of herself. She won't leave the puppies long enough to eat, for example, Casal says. Nutrition is the most important factor in sufficient milk production, so a dam that doesn't eat is not going to be able to feed the litter on her own.

Growing a Milk Factory

Development of the mammary glands in preparation for lactation begins as soon as the dam is pregnant, Casal explains. The level of the hormone prolactin increases over the course of the pregnancy. It is this hormone, along with estrogen and progesterone, which cause the tubules, or ducts, in the mammary tissue to "increase dramatically" in size to allow sufficient production of milk.

An increase in progesterone induces the production of prolactin, Casal says. "That's what really makes the mammary gland tissue take off." Growth hormones and insulin growth factors also play roles. The tissue never develops fully "if the dog doesn't produce enough growth hormones or if levels of prolactin aren't adequate," she says.

If a dam's mammary glands don't change significantly over the course of the pregnancy, they are not developing for lactation.

Although there is no "official" treatment for agalactia, Casal says there's some evidence that metoclopramide can boost milk production, "but it has a fair number of side effects and can be toxic to the nervous system and can go to the puppies. I might choose a different drug, such as domperidone. They use that in people, and it has far fewer side effects. Almost none of it goes to the fetuses. That one actually seems to anecdotally have more effect, with results in 24 to 36 hours. It's really quite amazing."

As a complementary treatment, some people recommend acupuncture, Casal adds.

Inadequate nutrition can contribute to a lack of development as well. Casal stresses, however, that it's "not the biggest component."

Genetics plays a much more significant role.

Most dams produce plenty of milk for the litter, however, in some cases, the milk doesn't let down after the puppies are born. Photo © Can Stock Photo.

A first-time bitch may produce less milk, yet, with future litters, have plenty for all the puppies. So, "you might want to give her a second chance," Casal says. If you make everything "feel fine" for the dam on the second litter, "maybe she'll do better on the next one."

However, after the first litter, "if it's not stressed, has a healthy pregnancy, hasn't needed medication, and it doesn't produce milk, you're probably out of luck for the next time too," she says. "The dogs that don't produce milk are ones that never really produced good milk. Genetics is a large part of that."

As to whether to continue breeding a dog that has poor milk production with a second litter, Casal says it's good to consider the dog's quality. "If the dog is of a decent quality, but not a top quality, then choose somebody else," she suggests. Because of the genetic component, it's likely the dam's female pups will not be good producers either. However, "if you have a top-notch hunting dog or trial dog, then go ahead and breed, and supplement the litter," she says.

Letting It Flow

By the time of whelping, it's quite obvious whether the momma dog has milk or not. "At the time of birth, the mammary glands should be pretty large," Casal says. Once everyone's calmed down after the birth, "every breeder should check for milk flow," she says. "Gently

squeeze" each nipple, she recommends, to make sure it releases liquid that looks alright and "doesn't smell awful." Early milk, or colostrum, may be yellowish and thicker than milk, but will quickly be replaced by regular milk.

"Nearly all" healthy dams have plenty of milk, Casal says, so after whelping, it's a question of the puppies having access to it.

Again for almost all dams, the milk lets down naturally, and the puppies start nursing right away.

However, if the milk doesn't release, it can be due to environment or insufficient oxytocin, another important hormone.

Anything that stresses the dam, such as excessive noise in the whelping room, can prevent the milk from letting down, Casal says. Too many people going in and out of the room, even other dogs going in and out, can also be a problem.

Fortunately, a shot of oxytocin will prompt the release of the milk. Some veterinarians may also use a sedative to relax the momma dog, however, Casal says she doesn't like to give any drug that might be passed on to the puppies.

In most cases, oxytocin is effective, and the puppies will have plenty of nutrition until they're ready for weaning.

Tags: agalactia, Best in Show Daily, BISD, eclampsia, hypocalcemia, Margret L. Casal DVM, mastitis, Susan Chaney