Contamination with *Toxocara* spp from Dog Walking

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Ova of *T cati* prevailed both in occurrence and abundance, making up 83% of the ova recovered.

In the Literature

Panova OA, Khrustalev AV. Dog walking brings *Toxocara* eggs to people's homes. *Vet Parasitol*. 2018;262:16-19.

FROM THE PAGE ...

Visceral larva migrans and ocular larva migrans can cause serious zoonotic diseases resulting from ingestion of animal roundworm ova, particularly *Toxocara canis* and *T cati*. Infected dogs and cats pass roundworm ova into the environment through deposition of feces. These hardy ova persist in the soil long after fecal matter has broken down. Children are at increased risk due to closer contact with soil or sand during play, potential for geophagia (ie, eating soil), and decreased awareness regarding hygiene as compared with adults. Other possible routes of transmission include contact with contaminated inanimate objects or ingestion of infected paratenic hosts.

In this study, researchers rinsed dog paws and soles of dog owners' shoes after dogs and their owners completed daily walking routines to identify and quantify the number of parasitic ova picked up during the walks. These numbers were compared with findings of samples from shoes of humans who do not own dogs. No parasite eggs were found in the samples of those who do not own dogs, possibly because these humans tend to walk on pedestrian paths and less-contaminated areas. Of samples from dog paws, 19.4% were positive for *Toxocara* spp ova; 11.4% of dog owner shoes were also positive. Egg counts in samples ranged from 1 to 8. Fecal flotation testing was negative in all 8 dogs studied, suggesting that ova were picked up from the environment. Ova of *T cati* prevailed both in occurrence and abundance, making up 83% of the ova recovered.

… TO YOUR PATIENTS

Key pearls to put into practice:

1. Eggs of *Toxocara* spp and other parasites can be carried into homes by the paws of dogs and the shoes of their owners. Thus, owners should be advised to wipe their dog's paws before allowing them indoors to decrease the potential for contamination.
2. The risk for contamination of homes with parasitic ova can be further reduced by removing shoes at the door and storing them on a separate washable mat. Soles should also be scrubbed and rinsed after dog walking and trips to the dog park.
3. Owners should be advised to avoid walking pets in heavily contaminated areas when possible and to pick up their pet's feces immediately after deposition.[1] Frequent testing and deworming, particularly of puppies and kittens, can help decrease environmental contamination from *Toxocara* spp and other intestinal parasites. Adult pets should receive broad-spectrum parasite control year-round.
4. Owners should be discouraged from allowing pets to roam, hunt, or scavenge.

Reference

1. Companion Animal Parasite Council. CAPC guidelines: ascarid. CAPC website. https://capcvet.org/guidelines/ascarid. Updated November 2016. Accessed March 2019.

Research Note: **Transmucosal Corn Syrup & Blood Glucose Concentrations in Kittens**

Although early-age gonadectomy has become more common, concern still exists regarding risk for hypoglycemia in very young animals that lack liver glycogen stores. This study evaluated the effect of postoperative transmucosal application of corn syrup, a common practice, on blood glucose concentrations in kittens. Seventy-five kittens between 8 and 16 weeks of age were randomly assigned to a treatment or control group. Corn syrup application was not found to result in significant blood glucose elevations as compared with controls, and no kitten in the study was demonstrated to be hypoglycemic. These findings suggest that routine dextrose supplementation in these patients is unwarranted and that truly hypoglycemic kittens may require an alternate route of administration to significantly increase blood glucose concentration.

Source

Cornell HN, Shaver SL, Semick DN, Bradley NC, Kreisler RE. Effect of transmucosal corn syrup application on postoperative blood glucose concentrations in kittens. *J Feline Med Surg*. 2018;20(4):289-294.