EFFICACY OF COMMON DISINFECTANTS ON *TOXOCARA* SPP. EGGS

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INTRODUCTION

- *Toxocara canis* (Order: Ascaridida) is an ubiquitous nematode whose main definitive host is the domestic dog (*Canis familiaris*).
- The human is the paratenic host, and suffers the *visceral larva migrans* disease.

Figure 1. Embryonated egg of *T. canis*.

OBJECTIVE

The aim of this study was to evaluate *in vitro* the *T. canis* eggs viability after two different disinfectant exposition (5% sodium hypochlorite (H) and 37% formaldehyde (F)).

MATERIAL AND METHODS

3 samples were collected from faeces of shelter dogs → Sucrose flotation (δ=1.20) McMaster technique → ≥900 eggs/g → 4ºC

	S1	S2	S3
Faeces volume	2 g	3 g	3 g
Total eggs	2600	2850	2700

150 g beach sand + fecal eggs solution → 3 ml of H, F and H_2O

x 3 samples

- 3 ml of each product were added every 72 hours in order to avoid dessecation.
- Eggs viability controls were performed every week with sucrose flotation (δ=1.20).

RESULTS

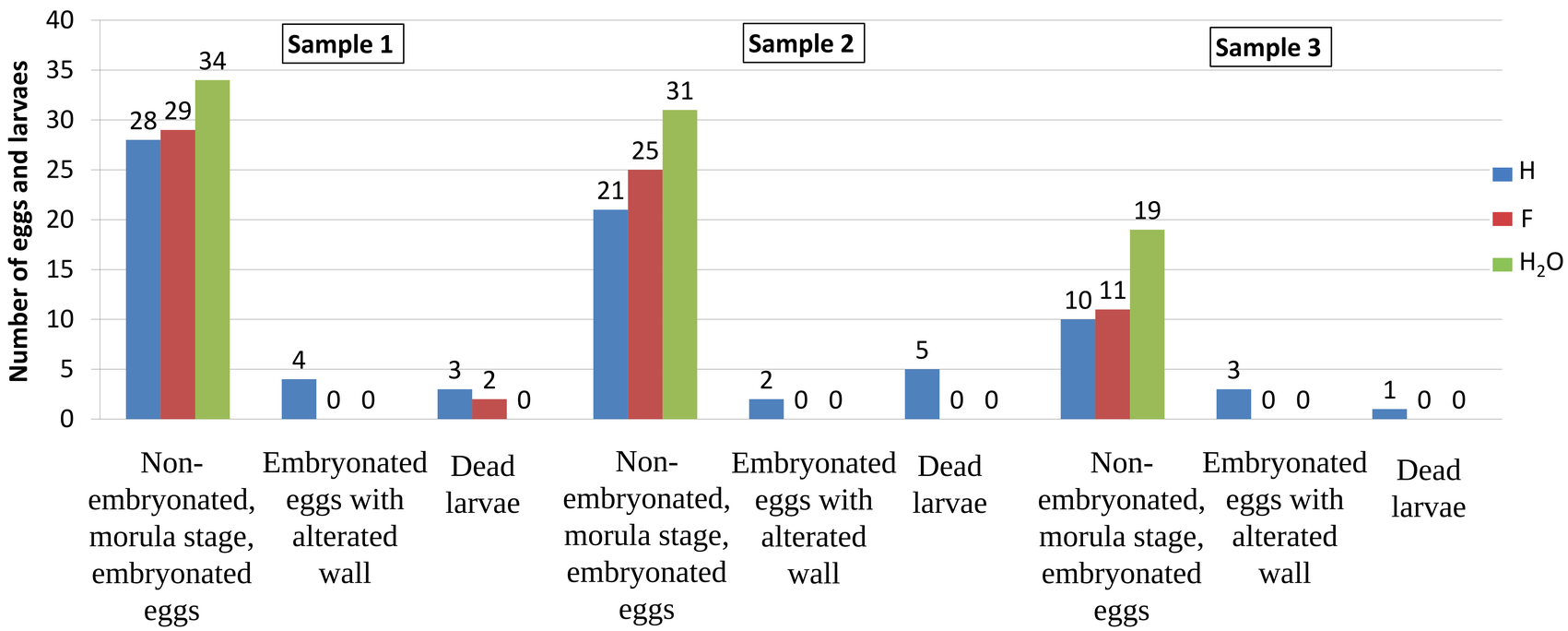

Figure 2. Viability of *T. canis* eggs detected by sucrose flotation technique (δ=1.20). H=5% Sodium hypochlorite; F=37% Formaldehyde; H_2O (control group).

DISCUSSION

- Sand, as a substrate, can absorb part of the disinfectants, limiting the egg alteration.
- A low concentration of eggs per gram of faeces may have limited this study.
- The eggs were obtained from stools which were collected from the ground of dog shelters, in opposition to other studies were they obtain from the uterus of the female.

CONCLUSIONS

- 5% sodium hypochlorite showed the highest *T. canis* egg alteration.
- Egg alterations were detected after being exposed for 23 days in 5% sodium hypochlorite and after 48 days in 37% formaldehyde.
- Further studies increasing the dose should be performed in order to observe whether the eggs of *T. canis* suffer or not further alterations.