IDENTIFICATION OF MICROFILARIA OF *DIROFILARIA REPENS* DURING ROUTINE CANINE EXFOLIATIVE VAGINAL CYTOLOGY – A REPORT

Exfoliative vaginal cytology is a technique routinely employed in small animal clinics to ascertain the optimum breeding time in bitches. It also helps in diagnosis of infertility conditions such as prolonged pro-oestrus / oestrus, vaginitis/endometritis, anoestrus *etc.* The early diagnosis of transmissible venereal tumour (sticker tumour) is also possible by exfoliative vaginal cytology. The cells which are commonly encountered during vaginal cytology include parabasal, small intermediate, large intermediate, superficial, anuclear keratinized, metoestrus cell, foam cell, red blood cells and neutrophils (Christie *et al.*, 1972). Bacteria and cell debris could also be detected.

As part of the routine investigation to identify the best time for breeding, a German Shepherd bitch was presented at the Gynaecology unit of University Veterinary Hospital, Kokkalai, Thrissur. On subjecting the anterior vaginal discharge to cytological examination using Wright – Giemsa combination stain (Post, 1985) anuclear keratinized cell was found to be the preponderant cell type. Interestingly microfilaria like structures could also be identified in the smear (Fig. 1). On subjecting the slide to detailed investigation they were identified as microfilaria of *Dirofilaria repens.* The wet film examination of the peripheral blood collected from the bitch also revealed microfilaria (7/LPF). Detailed examination of peripheral blood smear confirmed the microfilaria (Fig. 2) as that of *Dirofilaria repens.* A microfilaria of *Loa loa* was found in a routine cervico-vaginal smear from human by Callihan *et al.* (1977) and finding of *Dipetalonema gracile* larvae in vaginal content of Capuchin monkeys was reported by Coppo and Coppo (1991).

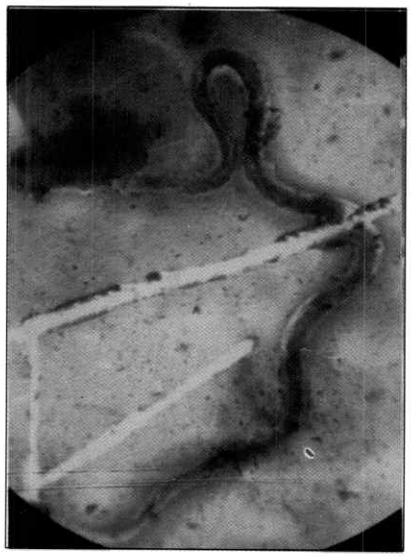

Fig. 1. Microfilaria in vaginal smear

Fig. 2. Microfilaria in blood smear

Perusal of literature could not reveal reports of microfilaria in canine vaginal cytology smear and hence this report.

Summary

A report of identification of microfilaria of *Dirofilaria repens* during routine exfoliative vaginal cytology is placed on record.

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