

The eggs from laying hens infected with *Brachyspira pilosicoli* may not be a potential source of infection for human

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Summary

The objective of the current study was to determine whether the eggs from laying hens infected with an isolate of *Brachyspira pilosicoli* recovered from an HIV-infected patient with diarrhea could be a potential source of infection for human. Over a four-week period following experimental infection, a group of eight inoculated chickens showed a persistent and significant increase in fecal water content ($\approx 6\%$ – 7%). Three of eight birds had positive fecal cultures and remained so. Post-mortem examination revealed no specific pathological changes. No spirochetal attachment to the cecal epithelium was observed. Although the cluacal and fecal swab culture of the infected birds were positive, swab culture taken from egg surface and culture from egg content were negative. Post-mortem swab cultures taken from the oviduct mucosa of infected birds was also negative. The results were confirmed by PCR. It was then concluded that although a human strain of *B. pilosicoli* could infect the laying hens, their eggs are not a potential source of infection for human.

Key words: *Brachyspira pilosicoli*, Laying hens, Human infection