The *in vitro* antimicrobial activity of triclosan coated polydioxanone suture material on bacteria commonly isolated from canine wounds

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OBJECTIVES

1. To determine the *in vitro* effects of triclosan coated (PDS Plus®) and non-coated (PDS II®) suture material on bacterial growth
2. To determine the *in vitro* duration of bacterial inhibition of PDS Plus® suture

METHODS

10 clinical isolates of *Pseudomonas aeruginosa*, *Staphylococcus pseudintermedius*, methicillin-resistant *S. pseudintermedius* (MRSP), *Escherichia coli*, and extended spectrum beta-lactamase (ESBL)-producing *E. coli* plus appropriate National Collection of Type Cultures controls. Isolates were incubated with PDS Plus®, PDS II®, an antibiotic disc of known efficacy, and a negative control following EUCAST guidelines. The zone of inhibition (ZI) around the suture material and antimicrobial discs was recorded. Sustained efficacy assays were performed as above (excluding *P. aeruginosa*), moving the suture material to a fresh culture every 24 hours.

RESULTS

ZIs were seen around PDS Plus® but not PDS II®. Confluent growth occurred with all the *P. aeruginosa* isolates. ZIs were seen with PDS Plus® for 20 days with *S. pseudintermedius* and MRSP, 15 days for *E. coli*, and 11 days for ESBL-*E.coli*.

STATEMENT (CONCLUSIONS)

PDS Plus® exhibits sustained *in vitro* antimicrobial activity against *S. pseudintermedius*, MRSP, *E. coli* and ESBL-*E. coli*. PDS Plus® could therefore reduce the prevalence of these wound infections in veterinary patients, although further studies are required to confirm this *in vivo*.

A comparison of the rates of postoperative complications between dogs undergoing laparoscopic and open ovariectomy

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OBJECTIVES

To test the hypothesis that dogs undergoing laparoscopic ovariectomy have a lower overall and wound-healing complication rate than dogs undergoing an open surgical approach.

METHODS

A retrospective study of dogs who underwent ovariectomy between January 1st 2013 and January 1st 2018. Cases were all operated on by the same team of similarly experienced surgeons using standard, practice anaesthetic, theatre and perioperative protocols. General complications were recorded, and graded using the Clavien-Dindo system. Complication rates were compared between the two groups of dogs. Wound complications were further subdivided using CDC guidelines into inflammation only, superficial SSI and deep SSI categories. Rates of wound dehiscence were also recorded.

RESULTS

Using strict definitions and adhering to the Clavien-Dindo system, 44.3% of 106 dogs undergoing open ovariectomy developed a recorded complication. 30 dogs (28.3%) had wound healing complications the majority of which were minor and self limiting. Superficial SSI was seen in 4.7% cases and deep SSI in 0.9%. Incisional herniation occurred in 3.7% cases.