

# Laparoscopic Spay in Dogs with von Willebrand Disease

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## In the Literature

Keeshen TP, Case JB, Runge JJ, et al. Outcome of laparoscopic ovariohysterectomy or ovariectomy in dogs with von Willebrand disease or factor VII deficiency: 20 cases (2012-2014). *J Am Vet Med Assoc.* 2017;251(9):1053-1058.

## FROM THE PAGE ...

Coagulopathies such as von Willebrand disease, which has a reported 1.5% prevalence in dogs,<sup>1</sup> and factor VII deficiency can cause clinically significant bleeding during elective canine procedures. Human studies have shown more bleeding complications have occurred during open procedures as compared with minimally invasive procedures.<sup>2-5</sup>

In this retrospective study, 16 Doberman pinschers were diagnosed with von Willebrand disease via a low von Willebrand factor antigen concentration (median, 19%; normal, 70%-180%) or via a buccal mucosal bleeding time of more than 5 minutes. Four dogs (including a beagle, a springer spaniel, a Scottish deerhound, and an Alaskan Klee Kai) were diagnosed with factor VII disease by a low serum factor VII activity or prolonged prothrombin time. Two dogs had a history of epistaxis, and one dog had previous facial bruising and swelling.

Of the 16 dogs with von Willebrand disease, 12 received desmopressin preoperatively; 4 received desmopressin and an infusion of cryoprecipitate, which is high in von Willebrand factor. Of the dogs with factor VII deficiency that received preoperative treatment, one received desmopressin and one received a plasma transfusion; the remaining 2 dogs received no specific treatment. Laparoscopic ovariectomy or ovariohysterectomy with or without gastropexy was performed with no unexplained intraoperative or postoperative hemorrhage.

This study showed no increased risk to dogs with preoperatively diagnosed coagulopathies that underwent laparoscopic elective procedures; no difference between single incisions and multiport incisions was noted. Preoperative identification and prophylactic treatment were likely key to successful procedural outcomes.

## ... TO YOUR PATIENTS

Key pearls to put into practice:

- 1** Preoperative testing for heritable coagulopathies is recommended in predisposed breeds.
- 2** Treatment with desmopressin and/or plasma products before elective surgeries in dogs with von Willebrand disease or factor VII deficiency is recommended.
- 3** Based on study findings, minimally invasive ovariohysterectomy or ovariectomy may be considered in female dogs affected with von Willebrand disease or factor VII deficiency.

## References

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