

# OVARIECTOMY IN FEMALE DOGS

## Comparative bibliographic review between the open technique (OVE) and the laparoscopic technique (OVE-LAP)

### INTRODUCTION

Ovariectomy is one of the most frequently performed surgical procedures in female dogs, which consists of the removal of the ovaries. It can be performed through open surgery (OVE) or laparoscopic technique (OVE-LAP).

### AIMS OF THE RESEARCH

This final-degree project is a bibliographic review that aims to compare OVE and OVE-LAP through analysing advantages and disadvantages in the preoperative, intraoperative and postoperative from current studies and from the first hand collection of cases.

### PREOPERATIVE, INTRAOPERATIVE AND POSTOPERATIVE ADVANTAGES AND DISVANTAGES

Table 1: Comparative table of the pre (1), intra (2) and postsurgical (3) characteristics.

		OVE	OVE-LAP
1	Surgical material	General surgery material	General surgical material + Laparoscopic instruments
	Staff	Surgeon + Sterile assistant	Surgeon + Sterile assistant + Non-sterile assistant
	Anesthetic monitoring	Vital parameters	Vital parameters + Mechanical ventilation
2	Visualization of abdominal structures	Direct observation	Magnification
	Surgical time	Depends on the author	
	Pain	Higher pain rates	Lower pain rates
	Learning curve	Steep curve	Shallow curve
3	Decrease of physical activity	62%	25%
	Pain	166.58 ng/ml cortisol/blood	110.59 ng/ml cortisol/blood
	Wound complications	28.3%	11%

Note: OVE (open ovariectomy) and OVE-LAP (laparoscopic ovariectomy).

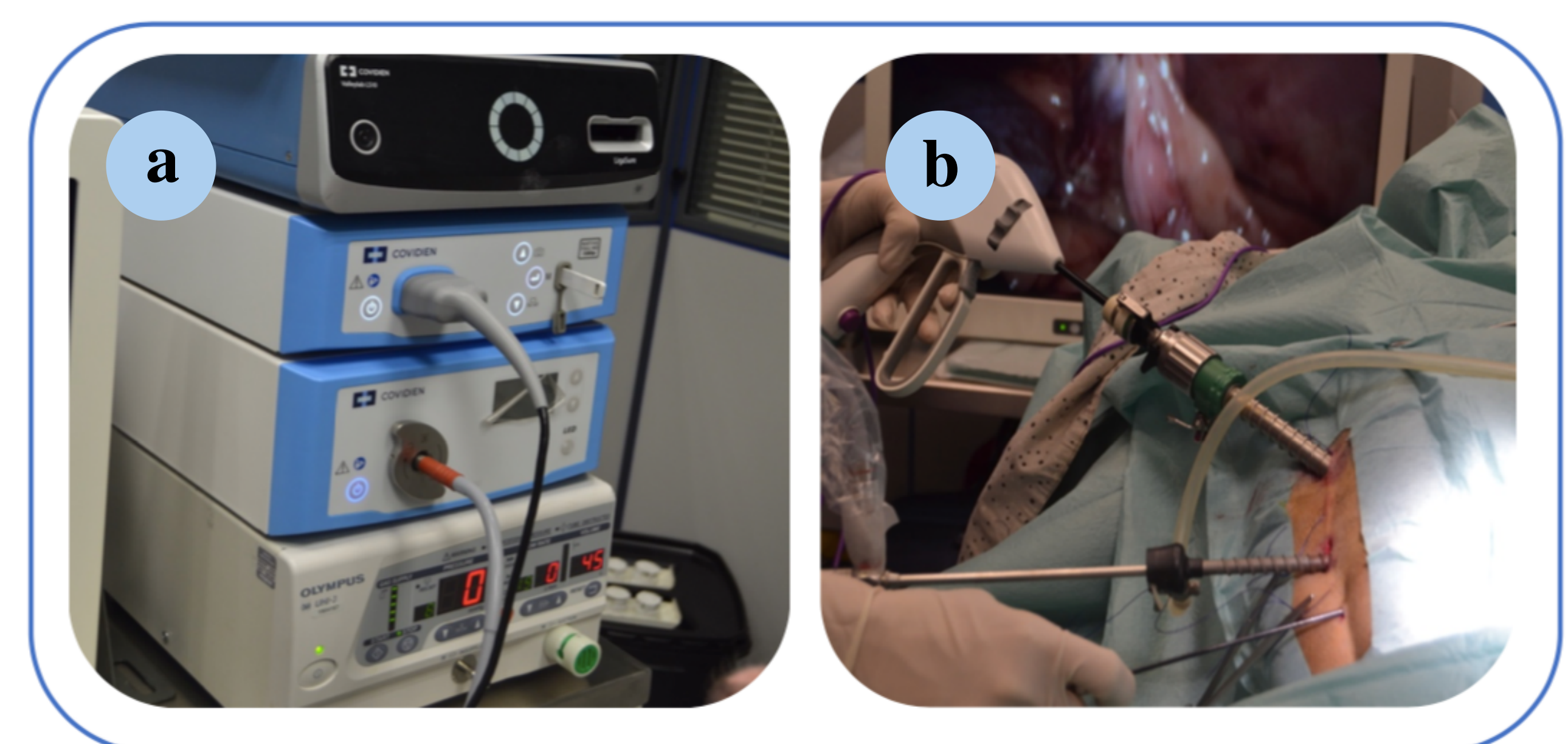


Figure 1: Laparoscopy tower (a) and other laparoscopic instruments (b).

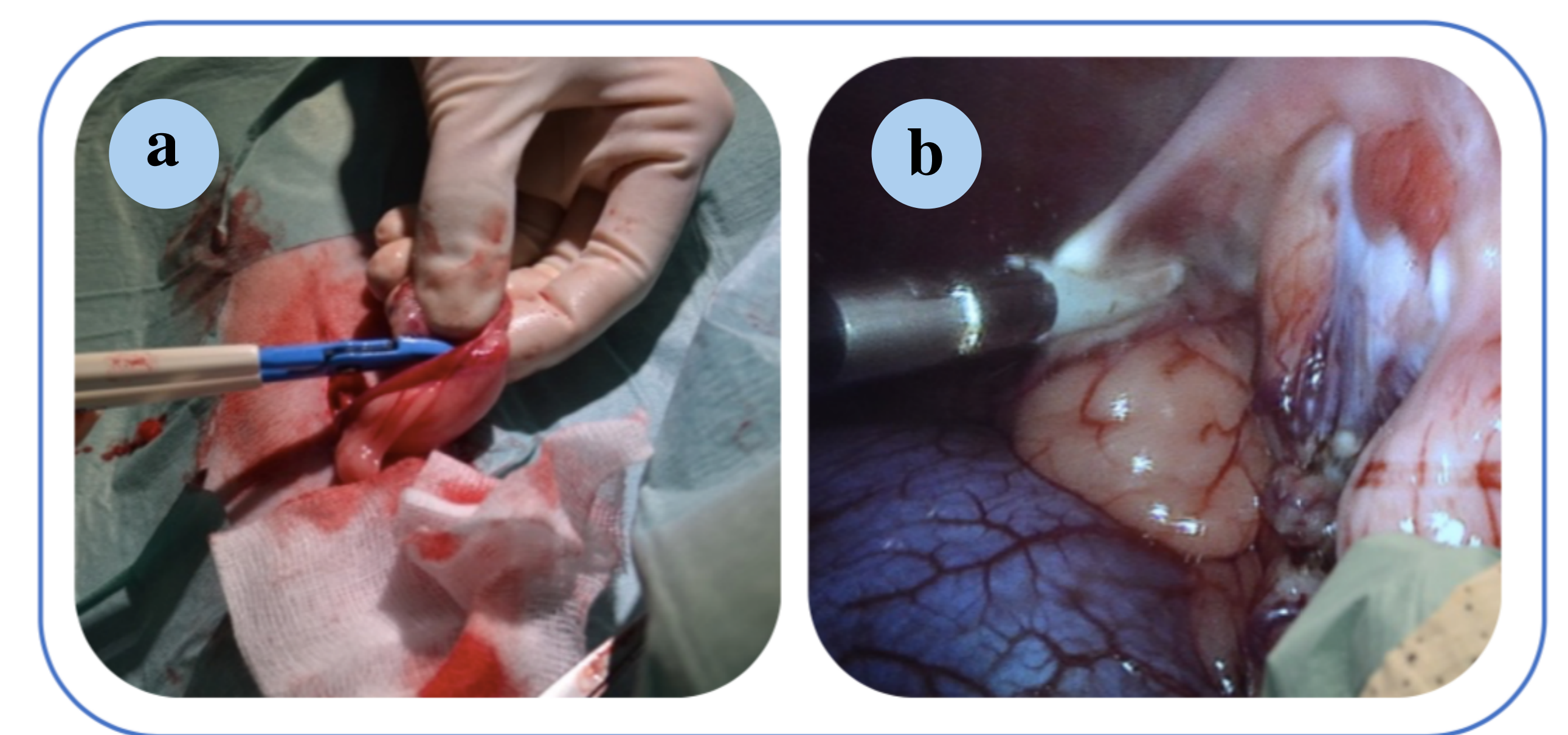


Figure 2: Ovarian visualization comparison between OVE (a) and OVE-LAP (b).

### CASES



Figure 3: Polycystic ovaries were difficult to remove by laparoscopy due to their large size.

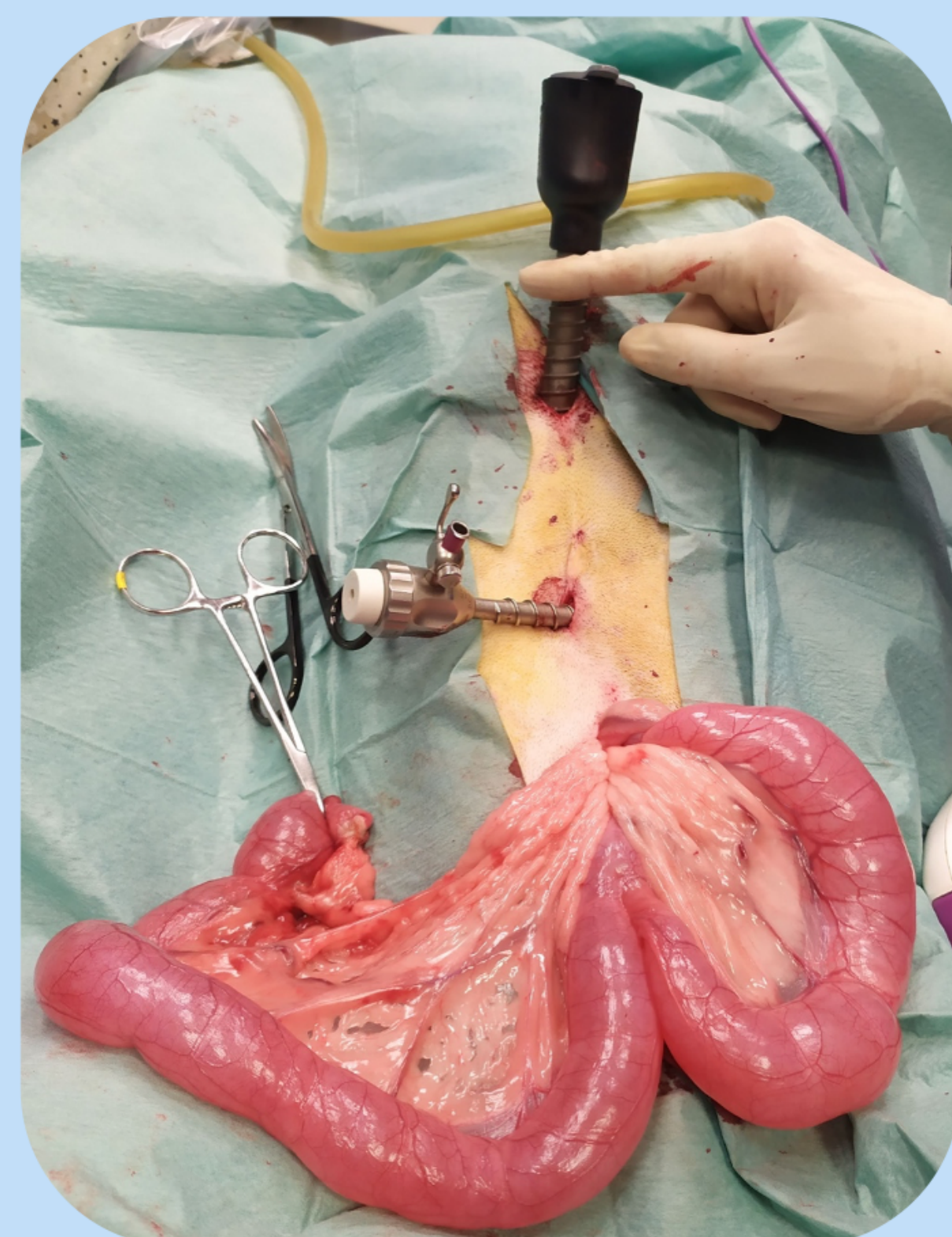


Figure 4: Hydrometra diagnosed intraoperatively resolved by laparoscopic conversion to ovariohysterectomy.

### CONCLUSIONS

OVE and OVE-LAP surgeries are both suitable for the castration of the female dog.

1. **Preoperative:** OVE has a cheaper and simpler material and a safer anesthesia. OVE-LAP has a decreased risk of contamination.

2. **Intraoperative:** OVE requires less experience. OVE-LAP has a better visualization of the organs and decreases pain. Further studies are needed to conclude which technique has a shorter total operative time.

3. **Postoperative:** OVE-LAP has a faster recovery and less postoperative complications.