Laparoscopic procedures in dogs and cats

H. Matyjasik¹, Z. Adamiak¹, W. Pesta², Y. Zhalniarovich¹

¹ Department of Surgery and Radiology, Faculty of Veterinary Medicine, University of Warmia and Mazury, Oczapowskiego 14, 10-719 Olsztyn, Poland
² Department of General Surgery, Faculty of Medical Sciences, University of Varmia and Masuria, 37 Wojska Polskiego Avenue, 10-228 Olsztyn, Poland

Abstract

Laparoscopic procedures are gaining wider application in veterinary medicine. The following article contains description of indispensable equipment for performing surgical procedures with use of laparoscopic technique and reviews some laparoscopic procedures which found application in veterinary medicine.

Key words: laparoscopy, endoscopy, dogs, cats

Introduction

Operational techniques based on laparoscopy have been widely applied in human, and recently also in veterinary medicine. The following article is a review of basic laparoscopic procedures that have found their ways to veterinary medicine, contributing thus to its development.

Surgical operations performed with laparoscopic methods are characterized by their low invasiveness, small percentage of complications and low mortality. Application of the modern laparoscopic techniques makes it possible to shorten significantly patients' hospitalization time, guaranteeing thus their faster recovery and entailing a higher level of satisfaction in their owners.

The most common indications to laparoscopy in animals are: biopsy of abdominal organs or abdominal tissue masses, as well as surgical operations such as: ovariohysterectomy, vasoligation, nefrectomy, cholecystectomy, or pyloroplastics. Some data in the subject literature also show possibilities of application of laparoscopy in cholecystic punctures for diagnostic purposes and in canine lymphoadenography (Brisson et al. 2006). In addition, some attempts of application of laparoscopic procedures in feline insemination have been described (Howard et al. 1992). Table 1 shows some of laparoscopic procedures performed in dogs and cats.

Although laparoscopy is a low-invasive procedure, not every patient can be subjected to it. Human patients with diaphragmatic hernia, extensive intra-abdominal adhesions cannot undergo laparoscopy. Laparoscopic operations should not also be performed in obese animals, ones with abdominal dropsy, or in general bad condition. Pyometra is also listed as a contraindication to laparoscopy (Rothuizen 1985). Nonetheless, successful cases of laparoscopy-assisted ovariohysterectomy in two pyometric bitches have been described (Minami at al. 1997). Laparoscopy should not be performed in patients that require conventional medical operations.