Use of Diodo laser in office hysteroscopic polypectomy

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INTRODUCTION

Endometrial polyps are fingerlike growths attached to the inner wall of the uterus that extend into the uterine cavity. They can be sessile or pedunculated and range in size from a few millimeters to a few centimeters. Polyps are usually noncancerous, but they may cause problems with menstruation or fertility.

MATERIALS AND METHODS

The aim of this retrospective observational study was to analyze treatment efficacy and patient compliance of Diodo Laser in benign intrauterine pathologies. The study included all the diagnostic and operative hysteroscopy procedures performed between 1-1-2009 to 31-10-2014 in women with endometrial polyps in the Hysteroscopy Unit of Hospital del Mar, Barcelona.

HYSTEROSCOPIC PROCEDURE

Patients were prepared with desogestrel 75 μg/day, for at least 6 weeks before the procedure to achieve endometrial atrophy. The night before the procedure, intravaginal misoprostol 200 μg was indicated (400 μg in nulliparous women). All patients received oral diazepam, 10 mg, and ibuprofen, 600 mg, 30 minutes before the office procedure. Prophylactic antibiotics were not given.

Hysteroscopic procedures were performed by a 4 mm continuous flow office hysteroscope (Bettocchi Office Hysteroscope size 4, Karl Storz, Tuttlingen, Germany) with a 2.9 mm rod lens optical system. Polyps resection was performed with Ceralas diode laser using a 1000-micron diamond probe tip (BioLitec, Germany) and the mechanical instruments used were grasping forceps with teeth and scissors (Karl Storz GmbH & Co.). The procedure was carried out without anesthesia, speculum, or Pozzi tenaculum.

RESULTS

During the study period, a total of 736 women fulfilled the inclusion criteria and were included in the study. We carried out 673 polypectomies. In 25 patients we performed a resectoscopic polypectomy in an operating room with anesthesia. In 22 cases because of polyp size or localization and in 3 cases because of intense pain during the ambulatory procedure.
In 63 cases the office hysteroscopic procedure was interrupted for cervical stenosis (38%), intense pain (28.5%), not sufficient preparation of endometrium (20.5%) and bleeding (13%). We finally performed 264 polyps resection using Diode laser and 409 using mechanical instruments.

The median operative time for 10-20 mm polyps was 4 minutes using Diode laser and 12 minutes with mechanical instruments. >20 mm polyps resection was performed in a median operative time of 9 minutes with Diode laser. Diode laser procedure was painless for 229 women (90.5%) compared with 354 (86.5%) women treated using mechanical instruments. Furthermore less patients treated with Diode laser experimented mild and moderate pain compared with the patients treated with mechanical instruments.

The most frequent complication was the vasovagal syncope (1.4%). 70% of cases occurred during the polypectomy using mechanical instruments.

CONCLUSIONS

Hysteroscopic polypectomy is a minimally invasive procedure that permits the complete removal of polyps under direct vision. Results of the present study show that office hysteroscopy can be successfully performed using Diode laser without anesthesia with minimal discomfort and in a shorter operative time than using mechanical instruments.