

PURE NOTES APPENDECTOMY WITH SINGLE PORT LAPAROSCOPY INSTRUMENTS: CASE PRESENTATION



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ABSTRACT

In this paper we present our initial natural orifice transluminal endoscopic surgery (NOTES) experience by video of a transvaginal appendectomy. Our experience demonstrated that pure NOTES appendectomy by transvaginal access is a safe and well tolerated procedure which can be performed also in emergency conditions.

Key Words: Pure NOTES, Single port, Laparoscopy, Appendectomy



Video of this article can be accessed on www.robotictimes.org

INTRODUCTION

Natural Orifice Transluminal Endoscopic Surgery (NOTES) has gained popularity as the forefront of minimally invasive surgery during recent years. Surgery through natural orifices may permit invisible scars, less postoperative pain, shorter hospital stay, fewer intraabdominal adhesions and avoid surgical site infection and incisional hernia (1, 2).

Since transvaginal approach for acute appendicitis was first described in 2008 (3), very limited number of pure NOTES transvaginal appendectomy experiences including cases and small series were reported. In this case report we aimed to present our first pure NOTES experience with technical details.

PATIENT AND DESCRIPTION OF THE SURGICAL TECHNIQUE

Fifty year old female patient with right lower-quadrant pain was admitted to the emergency

room. She had tenderness and rebound in physical examination; WBC: 13.200/mm³ and CRP: 42.5 mg/l in laboratory. Computed tomography revealed acute non-complicated appendicitis. Her body mass index was 24 kg/m². She had three vaginal delivery and an uneventful past-medical history. Pure NOTES transvaginal appendectomy was considered after informed consent of the patient was received.

Under general anesthesia the patient was placed in lithotomy position. Posterior vaginal fornix was explored with a speculum. The posterior cervical lip was grasped with a single-toothed tenaculum and the SILS™ port (Covidien, Mansfield, MA, USA) was introduced through posterior fornix with open technique (Figure 1). Pneumoperitoneum at 15 mmHg pressure was achieved. A 5-mm 30° endocamera, a 5-mm Ligasure Advanced™ (Covidien, Mansfield, MA, USA) and a 5-mm articulated grasper were used. After the meso was dissected appendix was divided from caecum by an Endo GIA™ stapler (Figure 2). The specimen was

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removed through the vagina. Posterior fornix was closed with polyglactin sutures. Operative time was 60 minutes and there was no significant blood loss. The patient was discharged on postoperative day one and returned to work on postoperative day 7. No perioperative complications and sexual dysfunction was observed.



Figure 1: Transvaginal placement of the SILS port.



Figure 2: External view during the division of appendix by endoGIA stapler.

TAKE HOME MESSAGES

1. Pure NOTES appendectomy by transvaginal access is a safe and well tolerated procedure which can be performed also in emergency conditions. This method allows favorable cosmetic results and patient recovery.
2. Early results of pure NOTES transvaginal appendectomy revealed that non-morbid obese patients with uncomplicated acute appendicitis are candidates for the procedure (2).
3. Potential disadvantages and controversial issues of the procedure such as long postoperative sexual abstinence, patient selection and technical difficulty should be enlightened by comparative studies.

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