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GENERAL GYNECOLOGY

The necessity of using tenaculum for endometrial sampling procedure with pipelle: a randomized controlled study

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Abstract
Objective To evaluate the use of tenaculum on pain perception of patients and on ease of endometrial sampling procedure with a pipelle.
Methods A randomized controlled trial was conducted in 118 patients for assessing pain perception and the ease of the procedure. Patients were randomly assigned to group 1 (without tenaculum) and group 2 (with tenaculum). Visual analog scale (VAS) was used to assess patients' pain at four different times during the process. VAS-3 reflected the pain during the procedure. Likert scale was employed by the surgeon to measure the ease of the procedure. Main outcome was VAS and the secondary outcomes were Likert scale and success rate in obtaining adequate samples of endometrial tissue for histopathological diagnosis.
Results Endometrial sampling procedure could not be performed only on three patients who belonged to group 1. The VAS-3 scores were higher in group 2 than group 1 ($p = 0.001$). Nullipar patients had higher VAS-3 scores than multipars ($p = 0.012$). VAS-3 did not vary in pre-peri-postmenopausal women ($p = 0.901$). Likert scale was lower in postmenopausal women than peri- or pre-menopausal patients ($p = 0.020, 0.017$, respectively). Use of tenaculum was found by logistic regression analysis to be an independent risk factor for patients' pain perception ($p = 0.0001$, RR 31.8, 95 % CI 8.3–122.4). Inadequate endometrial sampling was reported in 12 patients who were all postmenopausal.
Conclusion Endometrial sampling procedure without tenaculum is feasible and yields less pain perception than with tenaculum.

Keywords Endometrial biopsy · Pipelle · Tenaculum · VAS · Likert scale

Introduction

Endometrial sampling procedure (ESP) is often considered to be a first-line investigation procedure for the evaluation method of endometrium in abnormal uterine bleeding and other pathological conditions involving the uterine cavity. The pipelle de cornier is the most studied device in the literature which is a 23.5-cm-long, flexible, polypropylene sheath with an outer diameter of 3.1 mm. An inner plunger is withdrawn, creating suction along a negative pressure gradient [1]. This procedure has distinct advantages such as high detection rate of endometrial carcinoma especially in postmenopausal women [2] outpatient applications, simple, minimal invasiveness, enhanced time, cost effectiveness and less pain perception. For these reasons, it is one of the most common outpatient gynecologic procedures.

Most of gynecological office procedures such as ESP, hysterosalpingography (HSG), hysteroscopy, insertion of contraceptive intrauterine device, difficult intrauterine insemination often require the application of a single-tooth tenaculum to fixate the cervix, straighten the cervico-uterine angle, provide counter-traction and facilitate the procedure. However, grasping the cervix with a tenaculum can be a painful

Clinical Trial Registration: ClinicalTrials.gov, http://www.clinicaltrials.gov NCT01506778.

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