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Using a condom or glove to improve pelvic exam visualization: A guide

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Abstract

Objectives: Pelvic exams are a cornerstone of gynecological care, necessary for both regular screenings and diagnostics. The collapse of lateral vaginal walls during a pelvic exam is a frequently encountered problem in clinical practice.
Methods: Practitioners often utilize tools found in a typical clinical setting to counter this issue, such as a condom or glove over the speculum to prevent the lateral vaginal walls collapsing inward and obscuring cervical views.
Results: These techniques have been passed down from mentor to mentee over the years, though scarcely described in literature. This article aims to provide instructions on how to use these two methods in clinical practice to improve pelvic exams for the practitioner and the patient.
Conclusion: Utilizing a condom or glove to prevent lateral vaginal wall collapse has the potential to improve pelvic exams for both practitioners and patients.

Keywords

Condom, obstetrics/gynaecology, pelvic exam, speculum, women's health

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Introduction

Pelvic exams can be a difficult procedure for both the examiner and patient alike for a variety of reasons.[1,2] One issue frequently encountered is the poor visualization of the cervix on a speculum exam due to the collapse of the lateral vaginal walls, which are not held apart by the speculum in the same way that the anterior and posterior vaginal walls are. This issue is also multifactorial and is likely affected by parity, menopause status, obesity, and connective tissue physiology.[3,4] While the actual published literature on this issue is scarce, the problem is well-known to many of those frequently performing gynecologic services and is well-referenced in texts on performing pelvic exams.[1,2,5–7] It is also a subject of many patents and other proposed technologic innovations.

A frequently utilized method to decrease the collapse of the lateral vaginal walls is to place either a condom or a glove onto the speculum prior to use.[8] Specific instruction on how to utilize a condom or glove for sheathing in the literature is scarce. Freeman (2018) described using a condom on a speculum for pelvic exams, but did not discuss the use of gloves.[8] This article aims to describe various application methods for sheathing a speculum prior to use and the benefits and drawbacks of each technique.

Methods

Condoms versus gloves

Gloves may be more readily accessible in a clinical setting but have a few practical drawbacks when compared to condoms, particularly the commonly utilized nitrile glove. Drawbacks and benefits of each are outlined in Table 1.

Condom

There are three general themes for putting a condom on the speculum:

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Table 1. Gloves versus condoms for speculum sheathing.

	Glove	Condom
Readily available	+++	+
Slipping	−	+
Visualization	+	+++
Lubrication	−	+
Speculum opening height	+	+++
Excess material	+++	+

1. Place the condom on the speculum, cut the end of the condom, then use the speculum as normal. This procedure has minimal slipping while using it; however, it does have a small opening to both visualize the cervix and place any tools.
2. Place the condom on the speculum, open the speculum, and then cut the condom. Close and use the speculum as normal. This leads to a larger opening for visualization; however, it increases the likelihood of the condom slipping backwards toward the handle. This can be counteracted by "hooking" one end of the opening onto the anterior blade of the speculum.
3. Cut the condom before placement onto the speculum. This also leads to a small opening for visualization, although it has no effect on the problem of slippage. If a small area of visualization is adequate, then this technique might be preferred as the provider can prepare the condom prior to opening the speculum.

Gloves

The authors identify two general methods for using a glove as a sheath:

1. Insert the speculum closed into one of the fingers of the gloves and cut the end of the finger off. Then insert the speculum into the vagina and use as normal. The biggest limitation of this method is the vertical height limitation. There is not a lot of stretch in the finger of the glove, so the vertical height is impaired. Due to the decreased vertical height, in practice some gloves may break the plastic, single-use speculums when being opened. For procedures that do not need significant height to be achieved, this may be a reasonable method.
2. The second method is to place the glove on the speculum with the anterior blade in the second finger and the posterior blade in the fourth finger (only about ½″ into the fingers of the glove). Cut off the ends of the second, third, and fourth finger of the glove. Insert the speculum into the vagina and open, using the third finger hole for visualization. This method allows for greater vertical height to be achieved, as it is no longer limited as in method 1. There is also no slipping with insertion of the speculum into the glove. While theoretically this method presents as a mode of superior visualization and handling, its greatest drawback includes excess glove material near the end of the speculum. Given the glove's loose fit onto the speculum, the practitioner's ability to locate the cervix may be diminished with less protection from lateral wall collapse.

These authors have utilized the above methods with medium gloves across speculum sizes (Graves and Pederson types); however, this may be an area of practitioner preference and availability. Nitrile is generally used by these authors as it is cost effective, tolerable to patients, and readily available in many clinical settings. Further, the resistance of nitrile gloves works well for the purposes of sheathing a speculum. Other materials of gloves may be used as well, such as latex or vinyl; however, they are stiffer than nitrile and thus may be more difficult to use.

Discussion

Many clinicians regularly turn to making their own sheath when they are faced with a patient in which they struggle to obtain an unobstructed view of the cervix. Should the practitioner be mainly concerned with the vertical height of the speculum opening, they may start with using a condom to try to decrease lateral wall collapse as the condom provides less restriction on vertical opening in comparison to a glove. Conversely, if they are okay with a more constricted vertical height but need a tighter material on the lateral walls, then a glove may work best for their purposes. Due to the color of most gloves and the excess material a glove has, final visualization of the cervix is generally a more difficult process with a glove in comparison to a condom. Patient-specific factors, such as their body habitus, and clinicians' comfort and experience with each technique guide the decision between condom and glove as well. With these factors in mind, these authors suggest that practitioners trial using a condom or glove during a pelvic exam to get comfortable with the technique and potentially incorporate this method into their individual practice to improve visualization during pelvic exams.

While there is an FDA-cleared product for a speculum with an integrated sheath, this tool is not readily available in many clinical offices.[9] Researchers have identified benefits of using an integrated sheath; however, no research has been done on whether using a glove or condom affects clinical outcomes. Further studies could identify if using this method improves the sensitivity or specificity of Pap smears or Human Papillomavirus testing. Other studies have proposed solutions that eliminate speculum use altogether in order to improve patient comfort.[10,11]

There are limitations to building this method into a clinical practice. First, there is a cost of additional materials used during a patient visit. If this were to become a standard part of a tray setup for pelvic exams, there could also be waste of the material when it did not need to be utilized. This practice

certainly has the potential to prolong a pelvic exam for a patient, as the practitioner may insert the speculum without a condom or glove and then need to take it out, place it, and redo the exam. These limitations all need to be weighed against performing a lower quality pelvic exam.

There are a wide variety of methods for preventing lateral vaginal wall collapse during pelvic exams. In the operating room, a side wall retractor is used while the patient is under anesthesia; however, this is not a practical solution for the awake patient seen in the clinic setting. A similar technique would be to carefully rotate the speculum to achieve some lateral wall retraction; however, this method does not always provide sufficient retraction. A wider Graves speculum could also be used but patient discomfort may prevent this. Therefore, a practitioner frequently turns to ad hoc solutions to sheath a speculum available at their disposal around the office.

Conclusion

Lateral vaginal wall collapse during a pelvic exam is a well-known problem to clinicians who perform pelvic exams. The methods outlined here have been passed from mentor to student and vice versa throughout the years, but not yet formally described as a clinical tool. This article describes specific instructions for sheathing a speculum using a condom or a glove, while discussing the practical drawbacks and benefits of each method, with the intent to guide providers as they use this tool in their clinical practice.

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RSY, PP, and AH helped in conceptualization; PP, RSY, AH, and EW helped in methodology. PP and RSY helped in writing the original draft. PP, RSY, AH, and EW helped in writing, review and editing. EW helped in supervision. All authors have read and agreed to the published version of the manuscript.

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Ethics approval

This is not applicable to this study. This work is describing general techniques used in clinical practice and while these techniques do apply to patient care, specific trouble shooting for the purposes of writing this article was not done with patients or human subjects.

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