International Journal of Healthcare Sciences ISSN 2348-5728 (Online)
Vol. 11, Issue 1, pp: (55-60), Month: April 2023 - September 2023, Available at: www.researchpublish.com

Use, Quality, and Effect of Pelvic Examination in Primary care for Detection of Gynaecological Cancer: Systematic Review

Prayudha Tegar Perbawa[1]

Faculty of Medicine, General Achmad Yani University, Indonesia

DOI: https://doi.org/10.5281/zenodo.8017256

Published Date: 08-June-2023

***Abstract*: One of the many initiatives to reduce the amount of time spent waiting for a diagnosis and to improve patient outcomes is the establishment of guidelines for the urgent referralof patients who have a suspicion that they may have cancer. These guidelines were developed by a number of different organizations. The pelvic examination has been acknowledged as an essential component of the well-woman visit ever since ancient times. This session is seen by many women and gynecologic care providers as an opportunity to discuss sexual and reproductive health problems with their patients. Consequently, many women take advantage of this opportunity. A pelvic examination is typically performed on asymptomatic women as a screening tool for gynecologic cancer, infection, and asymptomatic pelvic inflammatory disease; despite evidence to the contrary, some obstetrician–gynecologists and patients consider it to be important in detecting subclinical disease. a pelvic examination is typically performed on asymptomatic women as a screening tool for gynecologic cancer, infection, and asymptomatic An evaluation of the patient's external genitalia, an examination of the patient's internal genitalia with the use of a speculum, rectovaginal examination, and bimanual palpation are all potential components of the pelvic examination. These components can be carried out alone or in combination with one another, depending on your preference. According to the United States Preventive Services Task Force, there isnot enough data to determine whether or not a pelvic exam is accurate in diagnosing a number of gynecologic illnesses. There is not enough evidence to back the claim that pelvic examination (PE) is helpful in the process of identifying gynecological cancer.**

Keywords: **Detection; Gynaecological Cancer; Pelvic Examination; Screening.**

I. INTRODUCTION

Despite recent breakthroughs, global survival rates for the five major forms of gynecological cancer—ovarian, endometrial, cervical, and vaginal—remain lower than in comparable countries. Gynecological cancers are rather common around the world, affecting approximately 21,000 women each year. This could be due to a delayed cancerdiagnosis: the primary care interval, which is the amount of time between a patient presenting with symptoms suggestive of cancer and the point at which the general practitioner refers the patient to secondary care, plays an important role in a patient's diagnostic journey, and cancer outcomes could be improved by reducing delays in primary care.[1,2]

Guidelines for the urgent referral of patients with a suspicion of cancer have beenestablished by a number of different organizations as one of several initiatives to cut downon diagnostic delay and improve patient outcomes.[3] When symptomatic gynecological cancer is detected at an earlier stage, patient outcomes, notably survival rates, are expected to improve. It is the obligation of primary care practitioners to be aware of the warning signs and symptoms of gynecological cancer, as well as to make appropriate evidence-based decisions about additional evaluation and referral. Primary care practitioners play an important role in this process.[4]

However, this may be difficult to do due to the fact that many of the symptoms ofgynecological cancers are ambiguous and are more likely to be caused by benign sicknessthan by malignant disease. This makes it difficult to determine which condition is causingthe symptoms. Because primary care is typically the first point of contact for patients, professionals who work in this environment typically come into contact with cancer patients at an earlier stage, when their symptoms may still be milder than those who workin tertiary care. This is because primary care is typically the first point of contact for patients.[4]

It is common practice to do a pelvic exam in order to detect and treat a broad variety of conditions that might have an effect on the health of a woman. Despite the factthat the pelvic examination is a typical component of the physical examination, it is uncertain whether or not doing screening pelvic exams on asymptomatic women has a substantial effect on the morbidity or death rates associated with illness. The US Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific preventive care services for patients without obvious related signs or symptoms.[5]

This article investigate use, quality, and effect of pelvic examination in primary care for detection of gynaecological cancer.

II. METHODS

1. Protocol

This study was conducted in accordance with the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) 2020 standards. These elements servedas the basis for the rules that were implemented.

2. Eligibility Criteria

This literature review on accuracy of "pelvic examination" and "gynaecological cancer" was prepared to analyze the existing research on these two topics. These are the key concerns that were brought up in the research that is now being looked at. You are required to demonstrate that you can fulfill the following conditions in order for your work to be evaluated: 1) In order to be considered for publication, articles need to be written in English and highlight use, quality and effect "pelvic examination" and "gynaecological cancer" in primary care. 2) Articles that had been published after 2017 but before the period of this systematic review were taken into consideration for this evaluation. The following kind of writing will not be considered for inclusion in the anthology's publication: original research does not include editorials, submissions that donot have a DOI, reviews of articles that have already been published, or entries that are considerably similar to those that have already been published in the journal.

3. Search Strategy

The search for studies to be included in the systematic review was carried out from January, 11th 2023 using the PubMed and SagePub databases by inputting the words:

"pelvic examination" and "gynaecological cancer". Where *("gynecological examination"[MeSH Terms] OR ("gynecological"[All Fields] AND "examination"[All Fields]) OR "gynecological examination"[All Fields] OR ("pelvic"[All Fields] AND "examination"[All Fields]) OR "pelvic examination"[All Fields]) AND ("gynaecologic"[All Fields] OR "gynecologic"[All Fields] OR "gynecologically"[All Fields] OR "gynecology"[MeSH Terms] OR "gynecology"[All Fields] OR "gynaecological"[All Fields] OR "gynecological"[All Fields]) AND ("cancer s"[AllFields] OR "cancerated"[All Fields] OR "canceration"[All Fields] OR"cancerization"[All Fields] OR "cancerized"[All Fields] OR "cancerous"[All Fields] OR "neoplasms"[MeSH Terms] OR "neoplasms"[All Fields] OR "cancer"[All Fields] OR "cancers"[All Fields])* is used as search keywords.

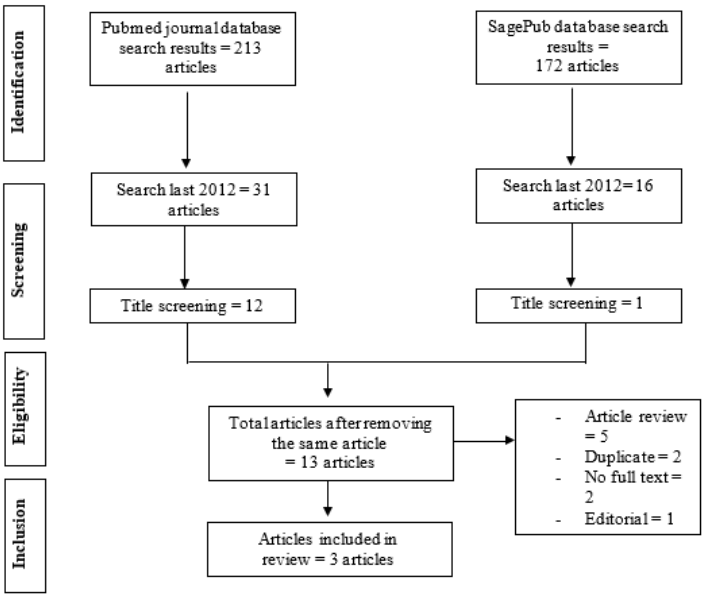

Figure 1. Article search flowchart

4. Data retrieval

Following a review of the titles and abstracts of previous pieces of research, the author of the study revised the criteria for inclusion and exclusion. The new criteria can be found in the supplementary materials for the research. This narrowed the scope of theproblem and highlighted the areas that need further investigation. The author arrived at this result after analyzing other experiments that were conducted similarly. During the process of the systematic review, the only studies that were taken into consideration werethose that fulfilled all of the inclusion criteria.

Only study proposals that met all of our criteria were taken under consideration. This guaranteed that there was a comprehensive checkup. This initiative gathered information pertaining to studies, such as the titles, authors, publication dates, locations,types of research studies, and parameters. These are things that can be learned. Information sources include: This information can be presented in several ways.

5. Quality Assessment and Data Synthesis

The authors each conducted their own independent examination of a portion of the research contained within the titles and abstracts of the papers before deciding whicharticles to study. After that, the full texts of publications that satisfy the criteria for the systematic review will be read in order to decide which papers will be included in the review. In order to facilitate the selection of articles for the review. "Which studies are ofsufficient quality to be included in the review?"

III. RESULT

The United States Preventive Services Task Force has come to the conclusion thatthe evidence that is now available is insufficient to evaluate the benefits and hazards of doing screening pelvic exams in asymptomatic adult women who are not pregnant. This statement does not apply to some illnesses for which the USPSTF has previouslyrecommended screening (ie, screening for cervical cancer with a Papanicolaou smear, screening for gonorrhea and chlamydia).[5]

Table 1. The litelature include in this study

Author	Origin	Method	Recommendation
US Preventive ServicesTask Force, 2017	USA	Re Recommendation Statement	The United States Preventive ServicesTask Force has come to the conclusionthat the evidence that is now availableis insufficient to evaluate the benefits and hazards of doing screening pelvic exams in asymptomatic adult women who are not pregnant. This statement does not apply to some illnesses for which the USPSTF has previously recommended screening. (ie, screeningfor cervical cancer with a Papanicolaou smear, screening for gonorrhea and chlamydia).
Doroudi,2017[6]	USA	RCT - 154,900 patients	The sensitivity and specificity of bimanual ovarian palpation were 5.1%(2/39) and 99.0% (49,957/50,459), respectively; no cases were detected bybimanual ovarian palpation alone. Rates for most follow-up procedures for abnormal results in women withoutovarian cancer were higher among thegroup with another screening testpositive, except for pelvic exam, where rates were similar. No complications were reported in the bimanual ovarian palpation-only positive group.
Lim, 2014[7]	UK	C Cross sectional – 333 patients	Forty (31%) patients had presented symptomatically: 11 (28%) delayed presentation. Patient delay was more common in patients <25 than patients aged 25-29 (40% versus 15%, P = 0.16). Vaginal discharge was more common among patients who delayed presentation than those who did not; many reported not recognising this asa possible cancer symptom. Provider delay was reported by 24/40 (60%); insome no report was found in primary care records of a visual inspection of the cervix and some did not re-attend after the first presentation for several months. Gynaecological symptoms were common (84%) among patients who presented via screening.

Doroudi, et al (2017)[6] showed sensitivity and specificity of bimanual ovarian palpation were 5.1% (2/39) and 99.0% (49,957/50,459), respectively; no cases were detected by bimanual ovarian palpation alone. Rates for most follow-up procedures for abnormal results in women without ovarian cancer were higher among the group with another screening test positive, except for pelvic exam, where rates were similar. No complications were reported in the bimanual ovarian palpation-only positive group.

Lim, et al (2014)[7] showed forty (31%) patients had presented symptomatically: 11 (28%) delayed presentation. Patient delay was more common in patients <25 than patients aged 25-29 (40% versus 15%, P = 0.16). Vaginal discharge was more common among patients who delayed presentation than those who did not; many reported not recognising this as a possible cancer symptom. Provider delay was reported by 24/40 (60%); in some no report was found in primary care records of a visual inspection of thecervix and some did not re-attend after the first presentation for several months. Gynaecological symptoms were common (84%) among patients who presented viascreening.

IV. DISCUSSION

Since ancient times, the pelvic examination has been recognized as an essential part of the well-woman visit. Many women and gynecologic care providers perceive thisappointment as a chance to discuss sexual and reproductive health concerns with their patients. A pelvic examination is typically carried out on asymptomatic women as a screening tool for gynecologic cancer, infection, and asymptomatic pelvic inflammatorydisease; despite evidence to the contrary, some obstetrician–gynecologists and patients consider it to be important in detecting subclinical disease.[5,8,9]

Assessment of the external genitalia, examination of the internal genitalia using aspeculum, bimanual palpation, and rectovaginal examination are all possible componentsof the pelvic examination. These components can be performed alone or in conjunction with one another. The United States Preventive Services Task Force stated that there wasinsufficient evidence about the accuracy of pelvic examination to diagnose a variety of gynecologic diseases.[5,10,11]

Because ovarian palpation alone did not uncover any cases of cancer, the bimanualexamination, which had previously been included in the yearly screening protocols, waseliminated. A screening pelvic examination is defined by the American College of Physicians (ACP) as an inspection of the external genitalia; speculum examination of thevagina and cervix; bimanual examination of the adnexa, uterus, ovaries, and bladder; andsometimes rectal or rectovaginal examination. In 2014, the American College of Physicians (ACP) evaluated the utility of a screening pelvic examination for the detectionof cancer (other than cervical), pelvic inflammatory disease, or other benign gynecologicconditions in asymptomatic, nonpregnant adolescent girls and adult women.[12,13]

There is limited data from studies that have evaluated the utility of screening pelvic examination alone for the identification of ovarian cancer. In general, the studies found modest positive predictive values (ranging from 0% to 3.6%). The US Preventive Services Task Force determined that the very few studies that have been completed on screening for additional gynecologic disorders with pelvic examination alone havelimited generalizability to the present population of asymptomatic women seen in primarycare settings in the United States.[5,11]

The United States Preventive Services Task Force determined that there was insufficient evidence on the potential risks associated with screening for a variety of gynecologic disorders by pelvic examination. A handful of studies reported on false- positive rates for ovarian cancer, which ranged from 1.2% to 8.6%, and false-negative rates, which ranged from 0% to 100%. Both of these figures were for false-positive rates.Five percent to thirty-six percent of the women who had abnormal results on their pelvicexamination went on to undergo surgery. Only a very small number of studies have documented the frequencies of false-positive and false-negative results for various gynecologic diseases. No research has attempted to quantify the level of anxiety that is linked with pelvic screening tests.[5,10,11]

In spite of the limitations of the data, the low frequency of ovarian cancer in the general population continuously resulted in low positive predictive values (PPVs) for the screening pelvic examination in identifying ovarian cancer. The identification of ovariancancer has a poor sensitivity (less than five percent), according to a big research that included more than 20,000 women. Due to the rarity of the condition, the limited number of studies, and the very short followup periods in most of the studies, we were unable to arrive at an accurate assessment of the screening's accuracy even taking into account all four studies that were included. According to the data that we looked at, the percentage of women who underwent surgery as a result of abnormal pelvic examination results varied from 5% to 36% depending on the research design and care methods.[6]

Older study showed examination rates in a cohort of patients with different gynaecological malignancies ranged from 52% for women presenting with vaginalbleeding to 18% for abdominal discomfort and only 4% for abdominal edema.[14] In a North American survey of ovarian cancer patients, 50% of those who saw a primary carepractitioner as their initial point of contact obtained a PE before referral. Examination rates were lower in a Nigerian research of self-reported practice: only 11.1% of GPs claimed they would do a speculum examination on women arriving with post-coital bleeding; this percentage reduced to 7.6% of women attending with post-menopausal hemorrhage.[15,16]

The pelvic examination may have a number of potential benefits, including the early detection of treatable gynecologic conditions before symptoms appear (for example,vulvar or vaginal cancer), as well as incidental findings such as dermatologic changes andforeign bodies. These opinions are based on the opinions of medical professionals. Additionally, screening pelvic examinations within the context of a well-woman visit mayallow gynecologists the opportunity to explain a patient's anatomy, reassure her of normalcy, and answer her specific questions, thereby establishing open communication between the patient and her gynecologic care provider. If the patient and her obstetrician–gynecologist are able to communicate with one another, it may be possible to shed light on symptoms that the patient may not have recognized as being abnormal.[17]

The evidence regarding the possible dangers of screening pelvic exams are few and of poor quality. The American College of Physicians determined that the data supporting the claim that the screening pelvic examination causes effects such as dread, anxiety, and shame was of a low quality. The number of women who reported feeling these things ranged from 10% to 80%. It was discovered that there were no research thatparticularly addressed indirect effects such as false reassurance, overdiagnosis, overtreatment, or diagnostic procedure-related problems.[12]

The conversation on the acquisition, maintenance, and efficient application of intimate examination skills into clinical practice has to be opened up by training programdirectors, clinicians, and medical educationalists. Study found a number of patient and practitioner characteristics that influence the use of PE; however, in order to fully understand how these factors interact with one another, they need to do more study. Theyare aware that women's shame about PE, as well as a lack of symptom awareness, misattribution of symptoms, and difficulties in accessing primary care, might function asobstacles to them presenting to their general practitioner; however, we need to determinewhether or not these can be improved.

V. CONCLUSION

There is insufficient data to support the idea that PE plays a beneficial part in theprocess of diagnosing gynecological cancer.

REFERENCES

[1] International Agency for Research on Cancer. Latest Global Cancer Data. Geneva:World Health Organization's; 2018.

[2] Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, et al. Global Cancer Statistics 2020 : GLOBOCAN Estimates of Incidence and MortalityWorldwide for 36 Cancers in 185 Countries. Vol. 71. 2021.

[3] Collins S, Sabaratnam A, Kevin H, Simon J, Lawrence I. Oxford Handbook of Obstetrics and Gynaecology. 2013;598–9.

[4] Funston G, O'Flynn H, Ryan NAJ, Hamilton W, Crosbie EJ. Recognizing gynecological cancer in primary care: risk factors, red flags, and referrals. Adv Ther. 2018;35(4):577–89.

[5] Force USPST. Screening for Gynecologic Conditions With Pelvic Examination: US Preventive Services Task Force Recommendation Statement. JAMA [Internet].7 Maret 2017;317(9):947–53. Tersedia pada: https://doi.org/10.1001/jama.2017.0807

[6] Doroudi M, Kramer BS, Pinsky PF. The bimanual ovarian palpation examination in the Prostate, Lung, Colorectal and Ovarian cancer screening trial: Performanceand complications. J Med Screen. Desember 2017;24(4):220–2.

[7] Lim AW, Ramirez AJ, Hamilton W, Sasieni P, Patnick J, Forbes LJ. Delays in diagnosis of young females with symptomatic cervical cancer in England: an interview-based study. Br J Gen Pract J R Coll Gen Pract. Oktober 2014;64(627):e602-10.

[8] Ahuja C, Cron J. Pelvic Examinations in the Adolescent and Young Adult Population: A Commentary on Why and When. J Pediatr Adolesc Gynecol.2021;34(6):783–6.

[9] Bibbins-Domingo K, Grossman DC, Curry SJ, Barry MJ, Davidson KW, DoubeniCA, et al. Screening for gynecologic conditions with pelvic examination: US Preventive Services Task Force recommendation statement. Jama. 2017;317(9):947–53.

[10] Guirguis-Blake JM, Henderson JT, Perdue LA, Whitlock EP. Screening for gynecologic conditions with pelvic examination: a systematic review for the US Preventive Services Task Force. 2017;

[11] Guirguis-Blake JM, Henderson JT, Perdue LA. Periodic screening pelvic examination: evidence report and systematic review for the US Preventive ServicesTask Force. Jama. 2017;317(9):954–66.

[12] Bloomfield HE, Olson A, Greer N, Cantor A, MacDonald R, Rutks I, et al. Screening pelvic examinations in asymptomatic, average-risk adult women: an evidence report for a clinical practice guideline from the American College of Physicians. Ann Intern Med. 2014;161(1):46–53.

[13] Qaseem A, Humphrey LL, Harris R, Starkey M, Denberg TD, Physicians* CGC of the AC of. Screening pelvic examination in adult women: a clinical practice guideline from the American College of Physicians. Ann Intern Med. 2014;161(1):67–72.

[14] Vandborg MP, Christensen R dePont, Kragstrup J, Edwards K, Vedsted P, HansenDG, et al. Reasons for diagnostic delay in gynecological malignancies. Int J Gynecol Cancer. 2011;21(6).

[15] Goff BA, Mandel L, Muntz HG, Melancon CH. Ovarian carcinoma diagnosis: results of a national ovarian cancer survey. Cancer Interdiscip Int J Am Cancer Soc. 2000;89(10):2068–75.

[16] Anorlu RI, Ribiu KA, Abudu OO, Ola ER. Cervical cancer screening practices among general practitioners in Lagos Nigeria. J Obstet Gynaecol (Lahore). 2007;27(2):181–4.