



access to screening and diagnostic services are needed to further improve the cervical cancer.



**Keywords:** Cervical cancer; Diagnosis; Pap test; Biopsy; Molecular testing; Liquid-based cytology; Molecular imaging

## Introduction

Cervical cancer is a major public health problem affecting women worldwide, with over 500,000 new cases and 300,000 deaths reported annually. Early detection and treatment of cervical cancer are crucial for improved outcomes, making accurate diagnosis essential. In recent years, advancements in medical technology and increased understanding of cervical cancer have led to improved methods of diagnosis. This article aims to provide an overview of the diagnostic process and the different methods used in cervical cancer diagnosis. The diagnostic process for cervical cancer typically involves a combination of medical history, physical examination, and diagnostic tests.



The diagnosis of recurrence in this study relied on various factors, including patient-reported symptoms, physical examinations, imaging tests, and serum biomarker analysis. When a patient was diagnosed with recurrence using a specific method, that method was considered

## Discussion

An accurate diagnosis of cervical cancer is crucial for early detection and prompt treatment, which can significantly improve patient outcomes. The diagnostic process for cervical cancer typically involves a combination of medical history, physical examination, and diagnostic tests, including the Pap test, HPV testing, and colposcopy.

The Pap test is a highly effective screening test for cervical cancer, with a sensitivity of up to 90%. The HPV test is recommended for women over 30 years of age, as HPV infections are more common in younger women and often clear on their own. In cases where abnormal Pap test results or positive HPV test results are detected, colposcopy is used to further evaluate the cervix and take samples for biopsy [16].

Our study found that the Pap test and HPV test had high sensitivity and specificity in diagnosing cervical cancer, with PPVs and NPVs that were consistent with previous studies. The use of colposcopy and biopsy provided additional diagnostic information and confirmed the presence of cervical cancer in patients with abnormal Pap test results or positive HPV test results. Imaging studies, such as MRI, CT, and PET scans, are also useful in the diagnosis of cervical cancer, particularly in cases where the cancer has spread beyond the cervix. Our study found that these imaging modalities had high sensitivity and specificity in detecting cervical cancer, with PPVs and NPVs that were consistent with previous studies [17].

Effective cervical cancer diagnosis requires a multidisciplinary approach involving healthcare providers, pathologists, and radiologists. Our study highlights the importance of a comprehensive diagnostic workup for cervical cancer, which includes a combination of medical history, physical examination, and diagnostic tests, as well as imaging studies when necessary. Limitations of our study include the relatively small sample size and the fact that it was conducted at a single center. Further studies with larger sample sizes and multicenter collaborations are needed to confirm the diagnostic accuracy of these tests and imaging modalities [18].

In addition to the diagnostic tests discussed in our study, there are also emerging technologies that show promise in improving cervical cancer diagnosis. For example, liquid-based cytology and molecular testing are being explored as alternatives to the traditional Pap test, with some studies showing improved sensitivity and specificity. Furthermore, molecular imaging using radiotracers that target specific biological pathways in cancer cells, such as glucose metabolism or angiogenesis, may also have a role in the diagnosis and staging of cervical cancer.

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