CODEN [USA]: IAJPBB ISSN: 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

Available online at: http://www.iajps.com Research Article

MANAGEMENT AND PROGNOSTIC FACTORS OF SQUAMOUS CELL CARCINOMA AND ADENOCARCINOMA OF THE UTERINE CERVIX

AbdimazhitMunira and Chen Zhi Fang

First Affiliated Hospital of Xinjiang Medical University department of Obstetrics and Gynecology Urumqi, China 830054.

Article Received: March 2019 **Accepted:** April 2019 **Published:** May 2019

Abstract:

Aim*:To investigate the clinicopathological characteristics and survival of squamous cell carcinoma and adenocarcinoma the cervix using Surveillance, Epidemiology, and end Results database.* ***Method****:Patients with a diagnosis of squamous cell carcinoma and adenocarcinoma of the cervix were included between 2014 and 2019. Kaplan-Meier method and Cox regression models were used.* ***Result****: A total of 186 patients were included in this studyof which patients with known International Federation of Gynecology and Obstetrics stage and tumor grade, the stage III disease was diagnosed in 9.6% patients, and 26.46% patients had poorly or undifferentiated histology and well differentiated are 67.72%. The cumulative 5-year survival rates for stages Ib, II, and III/IVa disease were 93.5, 77.0, and 60.3%, respectively.* ***Conclusion****: In multivariate analysis, the survival outcome of the patients remained high in the study that is mostly due to more patients of primary stages also the survival is associated with age. Squamous cell carcinoma is common and has aggressive characteristics, prone to metastasize and is dismal in prognosis compere to adenocarcinoma of the cervix.*

Keywords: Uterine cervical neoplasm, cervical cancer staging, hysterectomy, prognosis.

Corresponding author:

Cheng Zhi Fang,

Gynecology department of the First Affiliated Hospital, Xinjiang Medical University 830054, Urumqi, China.

QR code

Please cite this article in press Abdimazhit Munira al., ***Management and Prognostic Factors of Squamous Cell Carcinoma and Adenocarcinoma of the Uterine Cervix.,****Indo Am. J. P. Sci, 2019; 06(05).*

INTRODUCTION:

Cervical cancer is a cancer arising from the cervix. It is due to the abnormal growth of cells that have the ability to invade or spread to other parts of the body. Early on, typically no symptoms are seen. Later symptoms may include abnormal vaginal bleeding, pelvic pain, or pain during sexual intercourse. About 90% of cervical cancer patients are squamous cell carcinoma. Adenocarcinoma of the cervix is a rare disease accounting for approximately 1-2% of uterine cervix malignancies [1] [3].

Cervical malignant growth is a standout amongst the most well-known tumors in ladies around the world. Notwithstanding overall endeavors at screening with the point of identifying cervical disease in the beginning period, numerous malignant growths are not found until effectively progressed. Customarily, radical hysterectomy or radiation treatment alone has been acknowledged as standard treatment for beginning time obtrusive cervical malignancy, and privately propelled disease has been treated by radiotherapy alone comprising of a mix of high-portion rate intracavitary brachytherapy (ICBT) and outside bar radiotherapy (EBRT) (Okuma et al, 2015; Badakh et al, 2014;Tantivatana et al, 2018; Shwartz et al 2015).

In the previous couple of years, significant advances in the administration of privately progressed cervical disease have been accounted for. Five randomized preliminaries demonstrated improved survival and nearby control when cisplatin-based chemotherapy was added simultaneously to radiation treatment in patients with privately progressed cervical disease (Cho et al, 2018; Pervin et al, 2019; Zamorano et al, 2017; Lee et al, 2017; Tewari et al, 2014).This joined methodology approach delivered a flat out increment in 5-year survival of 12% as contrasted and radiation treatment alone and brought about an unexpected change in the standard of consideration for this malady. Presently that simultaneous treatment with cisplatin-based chemotherapy and radiotherapy is the standard treatment for privately progressed cervical malignant growth, the fundamental issue in treatment is the means by which chemotherapy is utilized, very little consideration is given to the radiotherapy strategy [5] [6].

Invasive cervical cancer (ICC) ranks third as the most common malignancy and fourth as the cause of cancer-related deaths among women worldwide.Despite population-based screening and development of advanced medical treatments, the morbidity of ICC is still common in developing countries like China, yielding 132,300 new cases each year.

Currently, adenocarcinoma (ADC) receives the same standard treatments as squamous cell carcinoma (SCC): radical hysterectomy, radical hysterectomy followed by adjuvant radiotherapy (RT) or primary RT for early-stage carcinoma. Concurrent chemoradiotherapy (CCRT), which is recommended in cases of locally advanced cancer and for patients with FIGO early-stage disease, has been widely accepted and produces equivalent results. However, disparate prognoses have been observed in both SCC and ADC patients with the same stage based on FIGO guidelines. Moreover, an upward trending incidence of ADC has been reported in many countries. This upward trend is particularly evident among women under age 40. The proportion of ADC has doubled over the past decade and accounts for approximately 25% of all cases of cervical cancer. The poorer prognosis of ADC patients compared to those with SCC raises the question of whether the current standard treatment for patients with SCC is suitable for those with ADC Thus, it is of great importance to determine the prognostic factors involved in ADC so as to establish a framework for new therapeutic strategies.

In the literature, the prognostic significance of some clinicopathological factors still remains controversial. The aim of the present retrospective study was to clarify the clinicopathological factors for predicting the prognosis for ADC and squamous cell carcinoma.

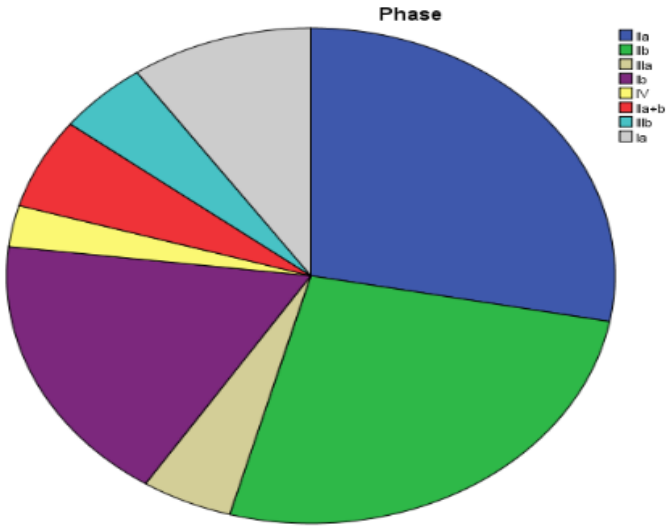
MATERIAL & METHODS:

All consecutive patients diagnosed with the FIGO staging of squamous cell carcinoma and ADC of the uterine cervix are treated at The First Affiliated Hospital of Xinjiang Medical University, China between October 2014 and January 2019 were eligible for this study retrospectively. A sum of 186new patients with essential intrusive cervical carcinoma were treated by radiotherapy, chemotherapy and radiography at the First affiliated hospital of Xinjiang Medical University, China. Of these patients, 99.0 % had unadulterated squamous cell carcinoma (SCC). The remaining 1 % patient with adenocarcinoma were rejected from this examination. After an underlying clinical examination, all patients experienced a total arranging workup, including a total blood tally, blood science tests, chest radiography, and biopsy of the cervical tumor. Cystoscopy and dribble implantation pyelography were performed in all patients; just in suspicious case was sigmoidoscopy performed [2] [6].

The quantities of patients are shown by malignancy arranges in Table 1. Stages were resolved by the International Federation of Gynecology and Obstetrics criteria. Patients with removed metastasis (ie organize IVb cervical carcinoma) before treatment and patients treated by chemotherapy before radiation were prohibited.

Table 1: Numbers of Patient by cancer staging.

Sr. No	Clinical Stage	No. of patients	% of patients
1.	IA	18	9.7%
2.	IB	33	17.7 %
3.	IIA	52	28 %
4.	IIB	49	26.3%
5.	IIA+B	11	5.9%
6.	IIIA	9	4.8 %
7.	IIIB	9	4.8 %
8.	IVA	5	2.7 %
	Total	186	100 %



Graph-1 Staging percentage

Patient

Data were obtained from the First Affiliated Hospital of Xinjiang Medical University, China between October 2014 and January 2019 that is maintained by the National Cancer Institute and consists of 186population-based cancer registries. We included squamous cell carcinoma patients from 2014 to 2019 and permission to access research data files was obtained.

Statistical Analysis:

Factual examinations were performed with the SPSS 16.0 programming bundle (IBM, Armonk, NY). Synopsis insights are displayed as frequencies and rates. The randomization of medical clinic records was performed through the probabilistic examining process with substitution, and a test for straightforward irregular examples was utilized. The example comprised of CC patients who were conceded somewhere in the range of 2014 and 2019 and whose restorative records included histopathological or

anatomopathological examinations. Deficient records or cases in which treatment was deserted before the consummation of the five-year follow-up time were barred. The season of survival was determined as the interim between the date of conclusion (by biopsy or medical procedure) in the emergency clinic record and the date of death or the finish of development. The most extreme follow-up time was five years; the instance of any patient who stayed alive after this point was shut.

Overall survival (OS) and relapse-free survival (RFS) were obtained by the Kaplan–Meier method for different groups. **The Kaplan–Meier** estimator, also known as the product limit estimator, is a non-parametric statistic used to estimate the **survival** function from lifetime data. In our research, it is often used to measure the fraction of patients living for a certain amount of time after treatment. The log-rank test was used to compare survival curves. Variables that showed a significant association with survival were included in multivariate analysis based on the Cox proportional–hazard model. Sites of recurrence were classified as local if detected in the pelvis or vagina, and distant if detected in extra pelvic locations.

RESULT:

Patient numbers by cancer stage of the study are shown in Table 1. Mean age of the patients was 46 years (range, 18–85 years). Disease-specific survival curves are shown according to cancer stages in Figure 1. The cumulative 5-year survival rates for stages Ib, II, and III/IVa disease were 93.5, 77.0, and 60.3%, respectively.

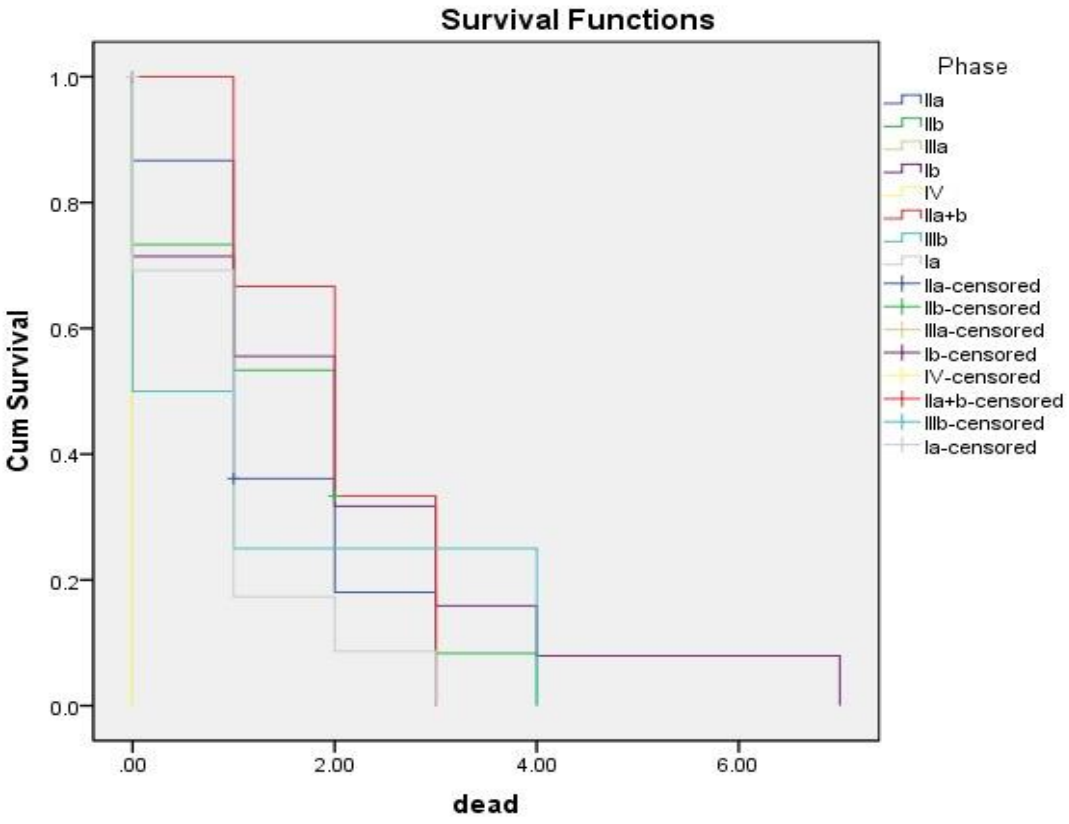


Figure 1: Disease-specific survival curves for five years and ten years.

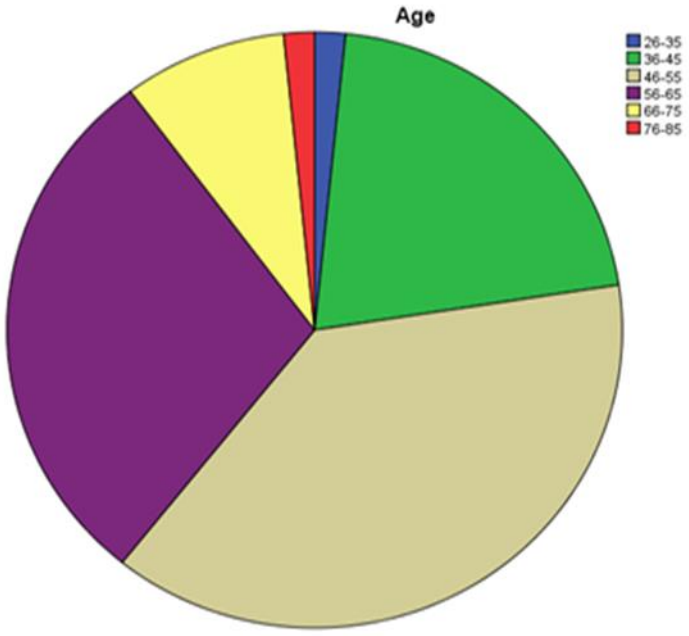
Percentage of prevalence as per the age distribution:

Percentage rates are a useful tool for comparing various characters among various populations suffering from various diseases having different consequences. Here a detailed description has been given of the patients along with their age distribution as well as the percentage of prevalence of the diseases in various age group.

Table 2. Patients from different age groups

Different age parameters	Percentage of Prevalence in decades of life (%)
Age (Year)	
Median Range	46
26-35	1.6 %
36-45	21 %
46-55	38.2 %
56-65	29 %
66-75	8.6 %
76-85	1.6 %

Table 2: Percentage of prevalence as per the age distribution Differentiation of Cervical Cancer (CC) based on different stage of CC



Graph-2 Age percentage

Patients were divided into different groups depending upon the different stages of cervical cancer they are going through in order to treat them in better way. They were divided in various groups like well differentiated CC, moderately differentiated and poorly differentiated respectively. Their detailed percentage occurrence is given below;

Table 3: Differentiation of Cervical Cancer (CC) based on different stage of Lesions.

Well differentiated CC	67.72 %
Moderately differentiated CC	5.82 %
Poorly/undifferentiated CC	26.46 %
TOTAL	100 %

Poorly differentiated cells may be similar in appearance to the original cells from which they developed, but they may not be able to do all of the jobs expected of healthy immune cells. Cells that are poorly differentiated are less mature, more likely to grow fast, and also generally more susceptible to chemotherapy.
Well-differentiated cells closely resemble mature cells and so they tend to divide and grow more slowly. Malignant cells that are well differentiated, like their normal counterparts, tend to grow slowly.
In some cases, information about differentiation can influence the prognosis and inform the treatment decision. In general, “well differentiated” translates to a lower grade cancer, while “poorly differentiated” translates to a higher-grade malignancy.
Moderately differentiated, Grade 2
Intermediate forms of tumor with both good and bad prognosis

Tumor Size (T)
The letter "T" plus a number (0 to 4) describes the size and location of the tumor, including how much the tumor has grown into nearby tissues. Tumor size is measured in centimeters (cm). A centimeter is roughly equal to the width of a standard pen or pencil. A larger tumor or a tumor that has grown more deeply into the surrounding tissue receives a higher number [9]. The details are given below;

Table 4: Tumor size distribution.

size (cm) Parameters	3.9 (0.1-7.4)
≤4 cm	74.07 %
>4 cm	25.93 %

Different Treatment options in patients of certain groups.
Most squamous cell carcinoma cases are found and treated at an early stage, where they are mostly treated with surgical treatment total/subtotal hysterectomy and in case of late stage cancer they are treated with radiology or chemotherapy. Larger squamous cell cancers are harder to treat, and fast-growing cancers have a higher risk of coming back. In rare cases, squamous cell cancers can spread to lymph nodes or distant parts of the body. If this happens, treatments such as radiation therapy and/or chemotherapy may be needed [7] [8]. The percentage of various patients’ treatment with different techniques is given in the table below;

Table 5: Different Treatment options in patients of certain groups.

Status	Frequency	Percentage
Give up	4	2.2
Surgical	123	66.1
Radiotherapy & chemotherapy	17	9.1
Radiotherapy	6	3.2
Chemotherapy	35	18.8
Surgery & Chemotherapy	1	.5

Lymphadenectomy

Table 6: Lyphdenectomy status

No	103 (54.50)
Yes	86 (45.50)
Lymph Nodes –ve	97 (51.32)
Lymph Nodes +ve	92(48.68)

*Lymphadenectomy has no significant effects on survival outcome in patients received.

DISCUSSION:

Most of the knowledge gained during this research study was from the single-institution reports with a limited numbers of patients. Here, we identified some patients of histologically confirmed squamous cell carcinoma between different ages from the Hospitals registry. Previous studies have showed that squamous cell carcinoma accounts cervix cancers. The incidence rate in our study was 0.7%, which is lower than previously reported. About 26.4% of squamous cell carcinoma patients have poorly or undifferentiated histology. Therefore, it is important to distinguish squamous cell cervical carcinoma from poorly differentiated cervical cancer [10].

We can see that there are patients who are suffering from cervical cancer and they get medical treatment according to their stages some patients are suffer from 1st stage of cervical cancer and some suffer from higher stages they all get surgery according to their conditions and then some patients get chemotherapy if we see according to ages so we have some sample of ages between 18 to 85 age. Most of the patients consisting of 28% of the patients were suffering with the Stage IIA clinical stage followed by stage IIB with 26.3%patients. The patients were treated using various treatment options depending on their complications. 3.2% patients had gone through Radiotherapy along with the Hysterectomy 66.1% and chemotherapy 18.8% for the recovery [12] [14].

In most of the patients the clinical symptoms are abnormal vaginal bleeding or a few of them with vaginal discharge and they get radiotherapy and chemotherapy as treatment in our data mostly patient cancer type is Squamous cell carcinoma with abnormal vaginal bleeding symptoms and after these patient there are some patient who are suffer from Papillary Squamous cell carcinoma cancer type and they get treatment as surgery with chemotherapy and there clinical symptoms are contact bleeding some patients are suffering from pelvic lymph node and they also get treatment radiotherapy with chemotherapy.

According to our data most of the patients who were suffering from this cancer are falling in between 45 to 55 age so they get treatment according to their clinical symptoms with different stages 1A 11A 1B 11B and IA1[13].

CONCLUSION:

In conclusion, squamous cell carcinoma is a disease with aggressive characteristics and prone to metastasize and is dismal in prognosis. The conclusion of this study is that more than 95 % of the cervix patients were suffering with the squamous cell carcinoma and were treated using various techniques. The survival outcome of the patients remained high in the study that is mostly due to more patients of primary stages also the survival is associated with age and our study population mean age falls between 45 to 55 years. The survival rate of patients who have this disease is associated with increasing age, stage of the disease and treatment by primary radiotherapy.

This is a limited study and more studies are needed to confirm our results and develop optimal management of squamous cell carcinoma of the cervix. There are several recommendations of this study. The first is the inherent biases existing in any retrospective study. However, the major strength of the present study is the ability to describe the epidemiology, clinicopathological features, treatment trends, and survival outcomes of this disease using a population-based study. Second, Hospital database lacked the information about centralized pathologic review, pathological factors (margin status and parametrical invasion details of radiation therapy and chemotherapy, and the data of local and distant recurrence. In addition, there is little information available to guide the choice of treatment in certain patients.

REFERENCES:

1. Siegel RL, Miller KD, Jemal A. Cancer statistics, 2015. CA Cancer J Clin. 2015;65:5–29.

2. Albores-Saavedra J, Gersell D, Gilks CB, Henson DE, Lindberg G, Santiago H, Scully RE, Silva E, Sobin LH, Tavassoli FJ, Travis WD, Woodruff JM. Terminology of endocrine tumors of the uterine cervix: results of a workshop sponsored by the College of American Pathologists and the

National Cancer Institute. Arch Pathol Lab Med. 2015;121:34–39.

3. Karia PS, Han J, Schmults CD. Cutaneous squamous cell carcinoma: estimated incidence of disease, nodal metastasis, and deaths from disease in the United States, 2012. J Am AcadDermatol. 2013; 68:957–66. doi: 10.1016/j.jaad.2012.11.037.

4. Gardner GJ, Reidy-Lagunes D, Gehrig PA. Neuroendocrine tumors of the gynecologic tract: A Society of Gynecologic Oncology (SGO) clinical document. GynecolOncol. 2011; 122:190–98.

5.Ramroth J, Cutter DJ, Darby SC, Higgins GS, McGale P, Partridge M, Taylor CW. Dose and fractionation in radiation therapy of curative intent for non-small cell lung cancer: meta-analysis of randomized trials. International Journal of Radiation Oncology* Biology* Physics. 2016 Nov 15; 96(4):736-47.

6. Zivanovic O, Leitao MM, Jr, Park KJ, Zhao H, Diaz JP, Konner J, Alektiar K, Chi DS, Abu-Rustum NR, Aghajanian C. Small cell neuroendocrine carcinoma of the cervix: analysis of outcome, recurrence pattern and the impact of platinum-based combination chemotherapy. GynecolOncol. 2009; 112:590–93.

7. Hoskins PJ, SwenertonKD, Pike JA, Lim P, Aquino-Parsons C, Wong F, Lee N. Small-cell carcinoma of the cervix: fourteen years of experience at a single institution using a combined-modality regimen of involved-field irradiation and platinum-based combination chemotherapy. J ClinOncol. 2003;21:3495–501.

8. Cohen JG, Kapp DS, Shin JY, Urban R, Sherman AE, Chen LM, Osann K, Chan JK. Small cell carcinoma of the cervix: treatment and survival outcomes of 188 patients. Am J Obstet Gynecol. 2010;203:347.e1–6.

9. Chan JK, Loizzi V, Burger RA, Rutgers J, Monk BJ. Prognostic factors in neuroendocrine cell cervical carcinoma: a multivariate analysis. Cancer. 2003;97:568–74.

10. AbelerVM, Holm R, Nesland JM, KjørstadKE, Small cell carcinoma of the cervix Aclinicopathologic study of 26 patients. Cancer. 2004;73:672–77.

11. Chen RJ, Lin YH, Chen CA, Huang SC, Chow SN, Hsieh CY. Influence of histologic type and age on survival rates for invasive cervical carcinoma in Taiwan. GynecolOncol. 2009;73:184–190.

12. Irie T, Kigawa J, Minagawa Y, et al. Prognosis and clinicopathological characteristics of Ib-IIb adenocarcinoma of the uterine cervix in patients who have had radical hysterectomy. Eur J Sur Oncol. 2000;26:464–467.

13. Landoni F, Maneo A, Colombo A, et al. Randomised study of radical surgery versus radiotherapy for stage Ib-IIa cervical cancer. Lancet. 2007;350:535–540.

14. Hosaka M, Watari H, Takeda M, et al. Treatment of cervical cancer with adjuvant chemotherapy versus adjuvant radiotherapy after radical hysterectomy and systematic lymphadenectomy. J ObstetGynaecol Res. 2008;34:552–556.