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Research Article

Cervical Cancer in Young Women - Retrospective Study for Cancer Treatment

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Abstract

The cervical cancer in women younger than 40 years, presents peculiarities compared to older woman. To specify the epidemiologic, clinical, histological, therapeutic and evolutive aspects of the cervix carcinoma in the young woman. Our retrospective study is about 31 cases of the cervical cancer, supervened in young women under the age of 40, recruited in the Mohamed VI center for the detection and treatment of gynecological mammary cancers at the Ibn Rochd University Hospital in Casablanca, during 3 years: between January 2019 and June 2022. The mean age was 36-year-old (18-40-years old). Thirty two percent had a sexual activity before the age of 18-year-old. And 39% of the patients were multiparous (3 children and more). About the clinical aspect, the mean delay of evolution has been 12 months. The metrorrhagia represented the main revealing sign of the disease (58%) of the cases. The average tumor volume was 4 m, 5 m (2 cm-10 cm). The most frequent histological type was the invasive squamous cell carcinoma (67.7% of the cases). The most widely used protocol is a combination of radiochemotherapy-surgery in 55% of cases. The evolution has been specified in 8 patients, characterised by distant recurrences in two patients. The frequency of cervical cancer in young woman reached 28% in certain studies. The mean age is from 17 to 40-year-old. Between 32% and 40% of the young women began their sexual activity before the age of 18-year-old. The epidermoid carcinoma is predominant. In order to save the fertility, the enlarged trachelectomy may be indicated in the treatment of early stages of cervical cancer in young woman. The clinical stage, the tumoral volume, and the ganglional invasion represent the prognostic factors of this cancer generally. For young woman, it is characterized by an earlier invasion and rapid evolutionary potential. The anti-HPV vaccination and the screening are the two primordial parts of prevention of cervical cancer.

Introduction

Worldwide, cervical cancer is the fourth most common cancer in women, after breast, colorectal and lung cancer, with an incidence of 6.5% [1]. In 2020, some 604,000 new cases were diagnosed, with 341,831 deaths, 90% of which occurred in low-and middle-income countries [1]. In Morocco, with over 3,300 new cases and almost 2,500 deaths each year, cervical cancer is the second most common cancer in women [2]. The incidence of cervical cancer is on the rise, especially in younger women, due to changes in sexual behavior and the proliferation of sexually transmitted infections, notably the Human Papilloma Virus (HPV), whose persistence is the initial risk factor for the development of cervical cancer [3]. Cervical cancer is the first virus-induced solid cancer in the human species, and the most preventable of all cancers. It is preceded for several years by precancerous lesions that are easily detected by regular cervico-vaginal smear tests.

Material and Method

This is a retrospective descriptive study of 31 cases of cervical cancer, occurring in young women (age ≤ 40 years), recruited from the Mohamed VI center for detection and treatment of gynecological-mammary cancers at the Ibn Rochd University Hospital in Casablanca, over a 3-year period: between January 2019 and June 2022.

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Results

The mean age was 36, with extremes ranging from 18 to 40. Thirty two percent of cases were sexually active before the age of 18. Thirty nine percent of patients were multiparous (3 children and 4). Clinically, the mean time to progression was 12 months. Isolated metrorrhagia was the main revealing sign of the disease (58%). The mean tumour volume was 4.5 cm, with extremes of 2 cm and 10 cm. The most frequent histological type was invasive squamous cell carcinoma (67% of cases), with a predominance of clinical stage IIB (in 76.9% of cases). The most frequently used protocol was a combination of concomitant radio-chemo-brachytherapy followed by surgery in 65% of cases. The evolution was marked by 3 cases of metastases, 5 cases of recurrence and 3 cases of death (Figure 1 and 2) (Table 1-4).

Discussion

Cervical cancer is a disease that develops in the cells of the cervix, the lower part of the uterus. It is generally caused by persistent infection with the Human Papillomavirus (HPV). Treatment modalities for cervical cancer vary according to the stage of the disease, the patient's general health, age and other individual factors. Here's an overview of the main treatment options [2].

Surgery is often the first option for early-stage cervical cancer. There are several types of surgery, including conization (removal of part of the cervix), radical surgery (removal of the uterus and surrounding tissue), and lymphadenectomy (removal of the pelvic lymph nodes). Radiotherapy is often used to treat cervical cancer at a more advanced stage, or when surgery is not an option. It may be administered in the form of external radiotherapy or brachytherapy (placement of radioactive sources directly into the cervix) [4,5].

Sometimes, radiotherapy is combined with chemotherapy (chemoradiotherapy) to improve results. Chemotherapy uses drugs to destroy cancer cells or prevent their growth. It is often used in conjunction with other treatments, such as radiotherapy.

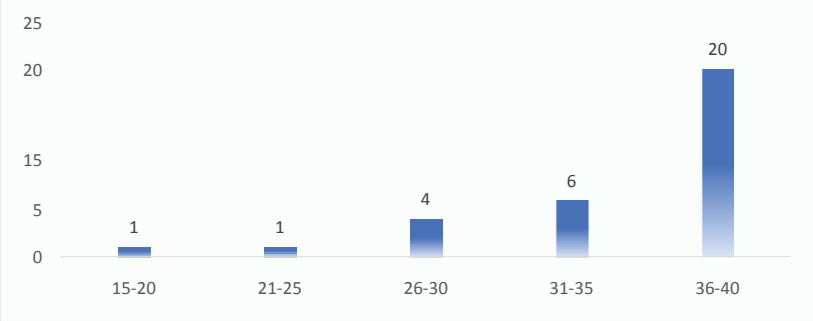

Figure 1: Distribution of patients according to age.

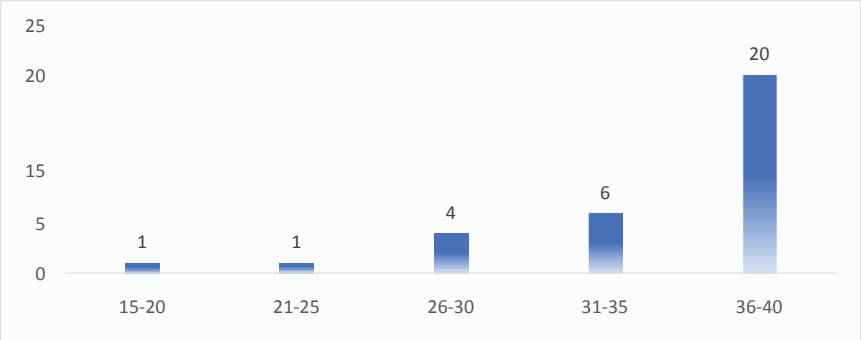

Figure 2: Distribution of patients by age at onset of sexual activity.

Table 1: Distribution of patients according to revealing signs.

Symptom	Name	Percentage
Isolated metrorrhagia	18	58.10%
Leukorrheaisolated	4	12.90%
metrorrhagia+leukorrhea	2	6.50%
Metrorrhagia+pelvic pain	4	12.90%
Pelvic pain+leukorrhea	2	6.50%
Metrorrhagia+leukorrhea+pelvic pain	1	3.20%

Table 2: Distribution of patients according to tumor size on clinical examination.

Tumor Size	Name	Percentage
≤ 3cm	6	19.40%
>3cm	13	41.90%
No tumor visible	6	19.40%
Not specified	6	19.40%

Table 3: Distribution of patients according to macroscopic tumor appearance.

Macroscopic Appearance	Name	Percentage
Ulcer-moving	6	19.40%
Budding	11	35.50%
Cervical inflammation	2	6.50%
Not Specified	12	38.70%

Table 4: Distribution of patients according to FIGO 2018 staging.

Stade	Name	Percentage
IA	1	3.80%
IB1	3	11.50%
IB2	0	0%
IIA1	1	3.80%
IIA2	0	0%
IIB	20	76.90%
IIIA	1	3.80%
IIIB	0	0%
Total	26	100%

Chemotherapy may be administered before or after surgery, or in conjunction with radiotherapy. Immunotherapy is a relatively new approach to the treatment of cervical cancer [6]. It aims to stimulate the patient's immune system to fight cancer cells [7].

Targeted therapies are aimed specifically at molecules involved in the growth and spread of cancer cells. They are sometimes used in combination with other treatments. Gene therapies are still in development, but offer promising potential for the treatment of cervical cancer. It is important to note that the choice of treatment will depend on the stage of the cancer, the patient's general health and the doctor's advice. What's more, research into cervical cancer is constantly progressing, which means that new therapeutic modalities and advances in treatment continue to emerge [8-14].

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Conclusion

HPV vaccination and screening are the two most important aspects of cervical cancer prevention. In Morocco, a national plan has recently been put in place to introduce the HPV vaccine into the immunization program. Vaccination will concern girls aged 11, with the overall aim of achieving 90% HPV vaccination coverage among these girls nationwide by 2030.

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