Objective: To determine the prevalence of precancerous lesions in the Lekoumou and Niari departments.

Patients and Methods: This was a descriptive and cross-sectional study over a period of 7 months from January to July 2020 in the department of lekoumou. The analyzes were made in the Laboratory of Medical and Morphological Analysis of the General Hospital of Loandjili. Our study involved a population of 100 women ranging in age from 16 to 73 years old. All of these women voluntarily benefited from a cervico-uterine sample. The cytological study was based on the international classification of BETHESDA 2001, taking into account the quality of the sample and the cell morphology. The variables studied were: age, marital status, level of education, cytology. Bivariate analyze was done between age and cytology. All the results of this study were statistically analyzed from the Chi-square test or Fisher's exact test using Epi-InfoTM software version 7.1.1.14, USA (http://www.epiinfo.com).

Results: The mean age of the patients was 34.6 ± 11.9 with extremes ranging from 16 to 73 years. The most represented age groups were 20-29 years old (31%) and 30-39 years old (29%). Our study population was predominantly college, accounting for 53% of cases. The proportion of uneducated women represented 11% of our study population. Almost ¾ of our study population were married women (74%). Singles represented only 22% of the study population. More than half of our study population, 58%, had normal cytology. Benign and reactive cell changes were diagnosed in 20% of cases. Low-grade and high-grade precancerous lesions were observed in 8% and 12% of cases, respectively. High-grade intraepithelial lesions were more represented in patients aged between 27 and 36 years 50%, high-grade lesions represented in 47% of cases. There were no statistically significant result between age and cytology.

Conclusion: Prevalence of precancerous lesions is relatively high. It is well known that intraepithelial neoplasia precedes invasive carcinoma after a period of about 10 years. Knowledge of these precancerous lesions is necessary for optimal prevention of cervical cancer.
Introduction
According to estimates from the World Health Organization (WHO) in 2019, cancer is the first or second leading cause of death before the age of 70 years in 112 of 183 countries and ranks third or fourth in a further 23 countries [1]. Cervical cancer with an estimated 570,000 cases and 311,000 deaths in 2018 worldwide, this disease ranks as the fourth most frequently diagnosed cancer and the fourth leading cause of cancer death in women [2].

The highest regional incidence and mortality rates are seen in Africa, with rates elevated in Southern Africa (eg, Swaziland), with the highest incidence rate), Eastern Africa (Malawi, with the highest mortality rate; and Zimbabwe), and Western Africa (Guinea, Burkina Faso, and Mali) [2].

The incidence of cervical cancer continues to decrease, unlike in developing countries, particularly in sub-Saharan Africa where the incidence is increasing exponentially mainly due to the poor organization of screening and prevention policies. Human papillomavirus (HPV) is the virtually necessary (but not sufficient) cause of cervical cancer [3]. In Congo, cervical cancer is the second most common cancer in women in terms of incidence and the first cancer in terms of mortality [1].

Cervical intraepithelial neoplasia (CIN) is a spectrum of intraepithelial cellular abnormality suggestive of neoplasia. The process of dysplasia of cervical cells means abnormal maturation [4]. According to Bethesda system 2014, CIN is classified into three grades which include mild, moderate and severe degrees (CIN 1, 2 and 3 respectively). The main risk factors for cervical dysplasia include HPV infection with serotypes 16, 18, 31, 33, 35 [5]. Other risk factors include early sexual activity, smoking, high parity and immunosuppression. Screening of pre-invasive disease of the Cervix aims to prevent morbidity and mortality from cervical cancer. Screening starts at the age of 21 and continues till the age of 65 years. The main screening methods of cervical cancer are: Cervical cytological screening (Pap smear); Visual inspection with acetic acid (VIA); Visual inspection with Lugol's iodine (VILI); Colposcopy; and Cervical biopsies. The conventional method (Pap smear): The Pap test was developed by Dr. George Papanicolaou in 1941. Cervical screening always requires an endocervical and an ectocervical sample, using wooden or plastic spatulas: Ayre and extended tip or Aylesbury [6].

Cervical cancer is preventable by cervical smear screening for intraepithelial neoplasia [7]. It is well known that intraepithelial neoplasia precedes invasive carcinoma after a period of about 10 years [8]. This tissue damage is often studied by conventional cervical smears [9-13]. Other methods are used as liquid-medium smears [10]. No study in this department has been carried out to our knowledge. This is how we set ourselves the objective of determining the prevalence of precancerous lesions in the Lekoumou and Niari departments.

Patients and Methods
We conducted a descriptive and cross-sectional study over a period of 7 months from January to July 2015 in the Lekoumou department.

The analyzes were carried out in the Laboratory of Medical and Morphological Analysis of the General Hospital of Loandjili. Our study involved a population of 100 women ranging in age from 16 to 73 years old. All of these women voluntarily benefited from a cervico-uterine sample.

Sexually active patients aged 16 and over who have given informed consent for adults and parental consent for minors were included.

We did not include patients who had undergone total hysterectomy as well as those who were menstruating. We carried out a simple random selection to constitute the size of our sample.

Method of Sampling
Each patient was placed in a gynecological position. After placing a sterile disposable speculum, two samples were taken.

The sample was taken with an Ayre spatula from the exo and endocervix. The collected cells were spread evenly and in a thin layer on a glass slide, then fixed with a cytological fixative spray.

Cytological Analysis
The coloring was done using the Papanicolaou technique. The cytological study was based on the international classification of BETHESDA 2001, taking into account the quality of the sample and the cell morphology.

The results of the cytological reading for the detection of precancerous lesions were classified into: Normal smear, Reactional benign cellular modification, ASCUS / AGUS, LGSIL, HGSIL.

The Bethesda System the standard universal system used for interpretation of Pap smear results. Types of results using Bethesda system include: Negative for intraepithelial lesion or malignant atypical squamous cells. 1) Atypical squamous cells of undetermined significance (ASC-US); 2) Atypical squamous cells—cannot exclude HSIL (ASC-H); 3) Low grade squamous intraepithelial lesion (LGSIL or LSIL); 4) High grade squamous intraepithelial lesion (HGSIL or HSIL); 5) Squamous cell carcinoma; 6) Atypical Glandular Cells not otherwise specified (AGC-NOS); 7) Atypical Glandular Cells, suspicious for AIS or cancer (AGC-neoplastic); 8) Adenocarcinoma in situ (AIS); 9) Adenocarcinoma. Low grade lesions correspond to CIN1 and high grade lesions correspond to CIN 2 and 3.

The variables studied were: age, marital status, level of education, cytology. Bivariate analysis was done between cytology and age.
**Statistical analysis**

All the results of this study were statistically analyzed from the Chi-square test or Fisher's exact test using Epi-Info™ software version 7.1.1.14, USA (http://www.epiinfo.com). Qualitative data were described using number and percent. Quantitative data were described using range (minimum and maximum), mean, standard deviation and median. Significance of the obtained results was judged at the 5% level.

For all tests, the association between two variables was considered statistically significant when p <0.05.

**Results**

The mean age of the patients was 34.6 ± 11.9 with extremes ranging from 16 to 73 years. The most represented age groups were 20-29 years old (31%) and 30-39 years old (29%) table 1. Our study population was predominantly college, accounting for 53% of cases, the proportion of uneducated women represented 11% of cases figure 1. Almost ¾ of our study population were married women (74%), Singles represented only 22% of the study population and 4% were widow figure 2. More than half of our study population, 58%, had normal cytology. Benign and reactive cell changes were diagnosed in 20% of cases, Low-grade and high-grade precancerous lesions were observed in 8% and 12% of cases, respectively table 2. High-grade intraepithelial lesions were more represented in patients aged between 27 and 36 years 50%, high-grade lesions represented in 47% of cases. LGSIL were most prevalent in patients aged 27 to 36 at 50%. HGSIL were 53% represented in patients over 46 years of age and 33% in patients aged 27 to 36 years, there were no statistically significant result between age and cytology (Figure 3).

**Table 1:** Distribution of Patients according to Age.

<table>
<thead>
<tr>
<th>Age</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>8</td>
<td>8%</td>
</tr>
<tr>
<td>20-29</td>
<td>31</td>
<td>31%</td>
</tr>
<tr>
<td>30-39</td>
<td>29</td>
<td>29%</td>
</tr>
<tr>
<td>40-49</td>
<td>20</td>
<td>20%</td>
</tr>
<tr>
<td>≥ 50</td>
<td>12</td>
<td>12%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figure 1: Distribution of Patients according to Level of Instruction.

**Table 2:** Distribution of Patients according to Cytology.

<table>
<thead>
<tr>
<th>Cytology</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>57</td>
<td>57%</td>
</tr>
<tr>
<td>MCBR</td>
<td>21</td>
<td>21%</td>
</tr>
<tr>
<td>ASCUS</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>LGSIL</td>
<td>7</td>
<td>7%</td>
</tr>
<tr>
<td>HGSIL</td>
<td>14</td>
<td>14%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figure 2: Distribution of patients according to marital Status.

Figure 3: Distribution of patients according to age and cytology.
P>5% non significant result.

**Discussion**

**Analysis of the methodology**

**Type and period of the study:** The descriptive and transversal nature of this study ensures an optimal quality of the results, because the collection of information was contemporaneous with the events described. The homogeneity of our study sample allowed us to make a simple analysis of the results obtained, representative of the general population of the study area.

**Study population:** The selection criteria were established in order to avoid bias in the interpretation of the results. We performed cervico-uterine smears (CDU) in women aged 16 years or older. For adolescents aged 16 to 18, informed consent from a parent or guardian was required to be part of the study, while those over 18 had to consent themselves. Qupe similar criteria were also used by
Lesions is necessary for optimal prevention of cervical cancer. After a period of about 10 years. Knowledge of these precancerous lesions is relatively high in the under 36 age groups. It is well known that intraepithelial neoplasia precedes invasive carcinoma. High-grade lesions in our resource-limited setting. These results agree with those of Womack et al in 2000 to detect cells anormal and share the quality of frottis. Other techniques in milieu liquide et couche mince implications in genèrè. Dernier Med. 2003; 122: 193-202.

The first concerned cervical intraepithelial neoplasms in Brazzaville with a percentage of 3.57% CIN.

The second focused on the comparative study of risk factors for precancerous lesions of the cervix in two Congolese health departments and found a percentage.

**References**


