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Full Length Research Paper

Different types of cancers and their frequency in the Department of Internal Medicine of the University Teaching Hospital of Treichville Abidjan (Côte d'Ivoire)

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Cancer has been marginalized in sub-Saharan Africa for many years due to the presence of major endemics such as Aids, Tuberculosis and Malaria. The aim of this study was to contribute to a better knowledge of cancers in the Department of Internal Medicine in Africa. It was a descriptive retrospective transversal study conducted from January 1, 2007 to December 31, 2012 in the Department of Internal Medicine of the University Teaching Hospital of Treichville on data of the patients with cancers. Of 6534 inpatients admitted into hospital, 116 had cancer (1.8%). The median age was 54± 15.5 years and the sex-ratio was 1.6. The main motives of admission were deterioration of general condition (60.3%) and long-term fever (28.4%). The medical histories were chronic viral hepatitis B (35%) and chronic alcoholism (15.5%). Primary liver cancer accounted for 48.3% of the cases followed-up pancreatic cancers (10.3%). The mortality rate was 34.5%. Cancers were less frequent in our study, but the prognosis was poor.

Key words: Cancers, epidemiology, mortality, internal medicine, Abidjan, Côte d'Ivoire.

INTRODUCTION

Cancers constitute a serious public health issue throughout the world due to its high frequency and their poor prognosis. As a matter of fact, it is estimated that 14.1 million new cases of cancers are discovered around the world and 8.2 million people die of cancer with more than half of these deaths recorded in developing countries (Globocan, 2012). Though many studies have been carried out on the issue of cancer in the Western world, it is not the case in Sub-Saharan Africa either in Côte d'Ivoire due to major endemics like Aids, Malaria, and Tuberculosis (Effi et al. 2012, Chbani et al.). The general objective of this study was to contribute to a better knowledge of cancers in a Department of Internal Medicine in Africa in order to improve the treatment of patients. Specific objectives were to describe epidemiological, clinical aspects and outcome of cancers in the Department of Internal Medicine of the University Teaching Hospital of Treichville in Abidjan.

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MATERIALS AND METHODS

It was a retrospective transversal study conducted from January 1, 2007 to December 31, 2012 in the Department of Internal Medicine of the University Teaching Hospital of Treichville, Abidjan (Côte d'Ivoire). It related to the medical records of patients hospitalized for cancer, irrespective of their gender. The diagnosis of cancer was retained based on some clinical, biological, radiological and microscopical (cytology, histology) arguments. In this study, we did not include patients admitted into hospital for cancer whose medical records were incomplete as related to some parameters considered in this study.

RESULTS

Of 6534 patients, 116 had cancer (1.8%). The age of patients was comprised between 21 and 90 years with a median age of 54± 15.5 years (figure 1) and the sex-ratio was 1.6. Medical histories revealed viral chronic hepatitis

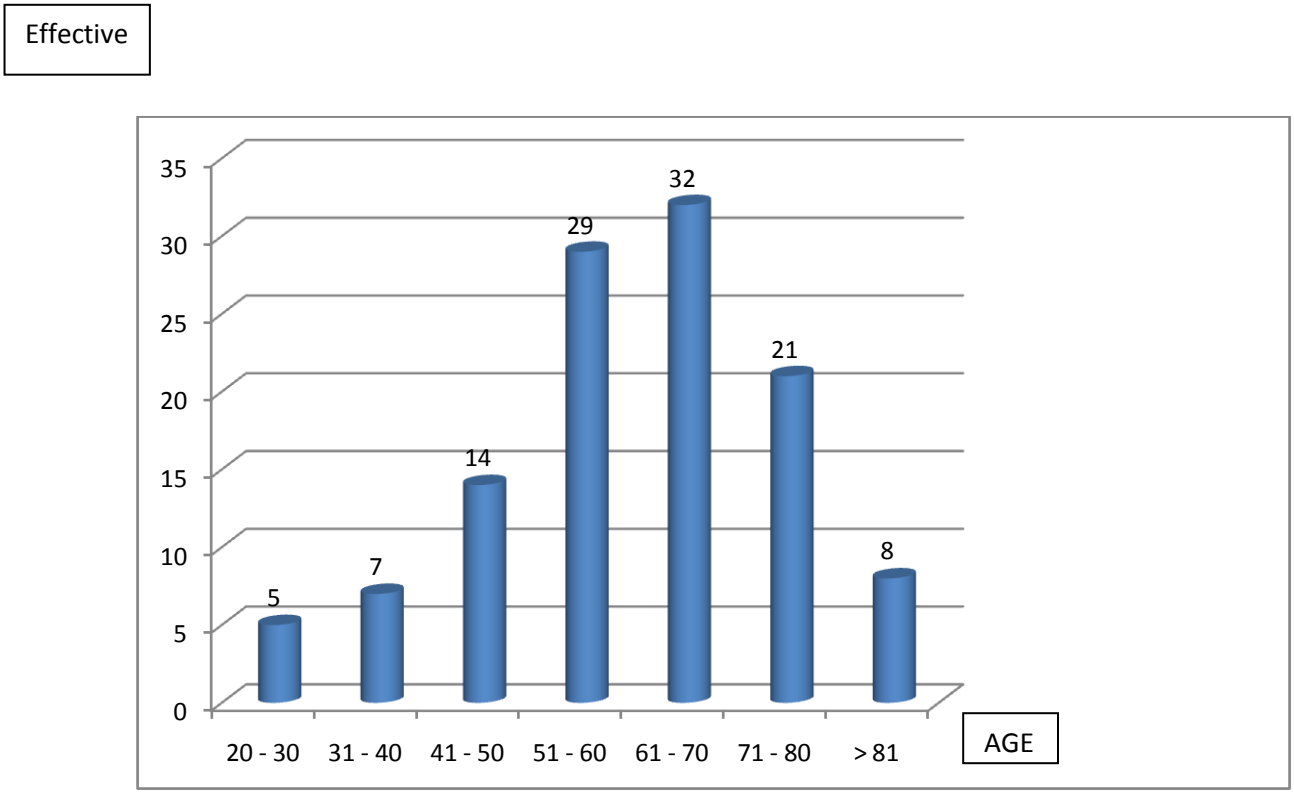

Figure 1. distribution of patients according to their age Median age was 54± 15.5 years.

B noticed in 41 patients (35.3%), chronic alcoholism (15.5%), nicotinism (13%), urinary bilharziasis (2.6%) and familial colorectal polyposis (0.9%). The motives of hospitalization were the alteration of the general condition (60.3%), long-term fever (28.4%), clinical anemia (24.1%), abdominal mass (24.1%), ascites (13%), pleurisy (4.3%) and polyadenopathy (4.3%). The most frequent cancers (table 1) were primary liver cancer observed in 56 patients (48.3%) followed by pancreatic cancer (10.3%) and prostatic cancer (8.6%). We noticed 40 cases of death (34.5%). The most lethal cancers by order of frequency were kidney, breast, prostate and cervical cancers (table 2).

DISCUSSION

The prevalence of cancers in our study is not very different from the results of a previous study conducted in a Department of Internal Medicine in Benin which is 3.2% (Zinsou et al. 1990). However, it is below the results from some Departments of Anatopathology in Rwanda and in Côte d'Ivoire which are in respective order 20.8% and 8.5% (Ndahinwa et al., Effi et al., 2012). This difference is justified as these Departments receive samplings from all the Departments and an important part of cancers are received in surgical Departments.

We observe that hospital prevalence reported in Sub-Saharan Africa varies from one study to the other and from one country to the other (Zinsou et al., 1990, Ndahinwa et al., Effi et al., 2012). However, they reveal the seriousness of cancers in Sub-Saharan Africa as we know that most of the patients do not have access to treatment. In industrialized countries where cancer prevalence is determined in the general populations, it is a real problem with an annual incidence of 355,000 in metropolitan France and of 1,660,290 in the USA (National cancer institute, 2012, Siegel et al., 2013).

Most of the authors who worked on the issue of cancer in Africa point out that cancer patients are relatively young adults with a median age of 44.8 in Rwanda (Ndahinwa et al., 2012), 53.5 in Morocco (Chbani et al., 2013) and 51.2 in Côte d'Ivoire (Effi et al.,2013). In our study, the age varied between 21 and 90 years with a median age of 54 years in accordance with aforesaid data. The distribution of patients according to the age (figure 1) revealed that the prevalence of cancer is increasingly important with age, confirming thus that cancer is an aging disease (National cancer Institute, 2012, Siegel et al., 2013).

We noticed a male predominance with a sex-ratio of 1.6 as in most of the studies (Zinsou et al., 1990, Chbani et al., 2013). The frequent of infection of men could be explained by their more important exposure to carcinoge-

Table 1. Distribution of cancers according to their location.

Type of cancer and their location	Number	Percentage/Type of cancers	Percentage/Total cancers
Digestive cancers	**83**	**100**	**71.6**
Primary liver cancers	56	67.5	48.3
Pancreatic Cancers	12	14.5	10.3
Stomach cancers	8	9.6	7
Colorectal cancers	7	8.4	6
Urological cancers	**14**	**100**	**12.1**
Prostate cancers	10	71.4	8.7
Testicular cancers	2	14.3	1.7
Bladder cancers	2	14.3	1.7
Gynecological cancers	**6**	**100**	**5.2**
Breast cancers	4	66.7	3.5
Cervical cancers	2	33.3	1.7
Hematological cancers	**6**	**100**	**5.2**
Chronic myeloid leukemia	3	50	2.6
Chronic lymphocitic leukemia	2	33.3	1.7
Kahler disease	1	16.7	0.9
Skin cancers	**3**	**100**	**2.6**
Bronchopulmonary cancers	**3**	**100**	**2.6**
Total	**116**		**100**

nic factors such as alcohol and tobacco (National cancer Institute, 2012, Siegel et al., 2013). The policy of the government of our country which aims at forbidding the consumption of these two products in public places should be encouraged.

We noticed with most of the patients some carcinogenic factors and precancerous lesions in accordance with the data in the literature (Globocan, 2012). There were chronic alcoholism (15.5%) and nicotinism (13%) for carcinogenic factors; viral chronic hepatitis B (35.3%), urinary bilharziasis (2.6%) and colorectal polyposis (0.9%) for precancerous lesions.

In Africa, due to the absence of cancer early screening policy, the difficult access to some treatments for some, the ignorance and ancestral believes for others, patients go on consultation at health centers only at an advanced stage of the disease (Zinsou et al., 1990, Garba et al., 2012). At this stage of the disease, the clinical chart is polymorph with an important alteration of the general condition justifying thus the orientation of patients in a Department of Internal Medicine. Long-term fever observed in more than a quarter of patients delay the diagnosis because in Africa, before a long-term fever observed people think rather about infectious causes namely aids and tuberculosis which are by far the most frequent (Wognin, 2012). It should be recalled that having eliminated such causes, cancers should be considered as they account for 10.2% of long-term fever causes and come second far before inflammatory diseases (Wognin, 2012).

Cancers were multiple and varied (table 1) by far dominated by primary liver cancer followed by pancreatic and prostatic cancers in accord with the data of most of African studies (Zinsou et al., 1990, Garba et al., 2013,

Table 2. Distribution of cancers according to their lethality.

Type of cancers	Number of patients	Number of Death	Percentage of death
Kidney cancers	1	1	**100**
Breast cancers	4	3	**75**
Prostatic cancers	12	6	**50**
Cervical cancers	2	1	**50**
Primary liver cancers	56	22	**39.3**
Gastric cancers	8	3	**37.5**
Hematological cancers	6	2	**33.3**
Bronchopulmonary cancers	3	1	**33.3**
Pancreatic cancers	12	1	**8.3**

Malanda et al., 2013). In view of our studies, we think that in Africa cancers should raise the awareness of political and sanitary authorities as most of the cancers are evitable or curable through the vaccination against hepatitis B, gastric cancers by the eradication of helicobacter pylori in chronic gastritis and gastroduodenal ulcers, bladder cancer by the forbidding of swimming in pond waters and the wearing of security boots for rice growers (Ouattara et al., 2009, Globocan, 2012).

The early screening of curable cancers is carried out for prostatic cancer by rectal touching at each clinical examination at each consultant after 50 years, the PSA dosage at least once a year or by the carrying out of an MRI of the prostate. This examination is currently inaccessible to most of the population but is promising as it is able to highlight, at the early stage of cancer, of the pathological tissue in the prostate (Globocan, 2012, Siegel et al., 2013). For rectocolic cancer, rectal touching at each examination with every consultant after 50 years should be carried out and the research of occult bleeding in the faeces by the hemocult II test on tools should be conducted. In women, cervical cancer is screened by carrying out a cervical smear each three years between 25 and 65 years and breast cancer by the self-examination of breats by the woman and if needs be by a mammography (Casanelli JM et al., Ouattara et al., 2010, Globocan, 2012).

In our study, bronchopulmonary cancers were relatively rare (2.6%) contrary to industrialized countries where they come first far before breast cancers and colorectal cancers (Globocan, 2012). Taking into account the increasing installation of tobacco companies in the capitals of African countries and that the number of smokers is increasing among women and youths, there could be an emergence of bronchopulmonary cancers.

According to statistics, more than half of the 8.2 million deaths related to cancers recorded in developing countries because of a lack of treatments (Globocan, 2012). This affirmation is comforted by the mortality rate (34.5%) observed in our study (Table 2). Although the rate is high, we think that it remains underestimated as a lot of people do not have access to hospitals and among those who have access to hospitals, most of them are lost to follow-up and do not have any medical record. As a matter of fact, in Africa in general and in Côte d'Ivoire in particular, when the parents of patients know the poor prognosis of the disease, they prefer to take them to village in order to reduce funeral expenses.

CONCLUSION

Cancers constitute a relatively less frequent motive of hospitalization in our study. Patients were mainly male adults in their fifties, admitted to hospitals at an advanced stage of their disease. Cancers were multiple and varied by far dominated by primary liver cancer. The prognosis was poor. The results show the necessity of sensitization and education of the general population in view of the early screening of cancers and also the necessity of vaccination against hepatitis B, the first cause of primary liver cancers in Africa.

CONFLICTS OF INTERESTS

Authors report no conflict of interest.

REFERENCES

Casanelli JM, Blegole C, Moussa B, N'Dri J, Aboua G, Yamossou F, Sidibe A, Keli E, N'Guessan HA (2005). Rectal cancer. Epidemiological, clinical and therapeutic Aspects on 16 cases at the University Teaching Hospital of Treichville. Mali med. 20: 21-23.

Chbani L, Hafid I, Berraho M, Mesbahi O, Nejjari C, Amarti A (2013). Epidemiological and pathological aspects of cancer in the region Fès-Boulemane (Morocco). East. Mediterr. Health J. 19: 263-270

Effi AB, Koffi KE, Aman NA, Doukouré B, N'dah KJ, Koffi KD, Kouyaté M, Koui BBS, Hondé M, Diomandé MIJ (2013). Descriptive epidemiology of cancer in Côte d'Ivoire. Bull. Cancer. 100: 119- 125.

Effi AB, N'Dah KJ, N'Guiessan AA, Doukoure B, Kouyate M, Abouna AD, Koui BS, Koffi KE, Troh E, D'Horpock AB (2012). Epidemiology and histopathology of cancers in Ivory Coast. Afr. J. Cancer. 4: 41-47.

Garba SM, Zaki HM, Arfaoui A, Hami H, Soulaymani A, Nouhou H, Quyou A (2013). Epidemiology of cancers in Niger, 1992 à 2009. Bull. Cancer. 100: 127-133.

International Agency for Research on Cancer. Globocan 2012. Cancer incidence, mortality and prevalence worldwide in 2012 on http://globocan.iarc.fr/ consulted 04.03. 2012.

Malanda JN, Mbon JBN, Bambara AT, Ibara G, Minga B, Epala BN, Mbalawa CG (2013). Twelve years of the cancer registry Brazzaville. Bull. Cancer. 100: 135-139.

National cancer Institute (2012). Epidémiology of cancers in France – Incidence and mortality. On **www.e-cancer.france** consulted 9. 3.2014.

Ndahindwa V, Ngendahayo L, Vyankandondera J (2012). Epidemiological and pathological aspects of cancer in the University Teaching Hospitals of Rwanda. Rwanda Med. J. 69: 40-8.

Ouattara B, Effi AB, Kra O, Kone S, Kouassi L, Ouattara P, Toure K, Kone D, Kadjo K, Niamkey EK (2009). Epidemiological, clinical, endoscopic and histological of gastric cancers at the University Teaching Hospital of Treichville, in Abidjan. Rev. Afr. Pathol. 8: 13-17.

Ouattara B, Effi AB, Kra O, Kone S, Kouassi L, Ouattara P, Toure K, Kone D, Kadjo K, Niamkey EK (2010). Epidemiological, clinical, endoscopic and histopathological of colon cancer at the University Teaching Hospital of Treichville (Abidjan). Rev. Afr. Pathol. 9: 26-30.

Siegel R, Naishadham D, Jemal A (2013). Cancer Statistics. CA. Cancer J. Clin. 63: 11-30.

Wognin AH (2012). The etiologies of long-term fevers observed in the Department of Internal Medicine of the University Teaching Hospital of Treichville Abidjan. Med. thesis, Abidjan. n° 315.

Zinsou CP, Fourn L, Zohoun T (1990). Epidemiological aspects of cancers in the National and University Teaching Hospital of Cotonou. Med. Afr. Noire. 37: 230-236.