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EPIDEMIOLOGICAL AND ANATOMOPATHOLOGICAL STUDY OF CANCERS DETECTED DURING MASS SCREENING IN THE BEJAIA REGION

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Abstract

The implementation of the colorectal cancer screening strategy in the wilaya of Bejaïa as a national pilot region as part of the 2015-2019 cancer plan was spread over a period of 2 years and 2 months from January 2017 to February 2019 During this period, the results were collected, the results of which are analyzed in a specific manner of the cancers diagnosed and their macroscopic and microscopic characteristics; We detected 17 cancers in the eligible population (2685) for mass screening, representing a rate of 6‰ for colorectal cancer. The average age of people screened for colorectal cancer is 59.76 years +/- 8.2, a median of 57 years and a mode equal to 50 years.

The effectiveness indicators are particularly important for the evaluation of mass screening of this cancer, the analysis of our data of detected cancers is necessarily a criterion of effectiveness due to the importance of the diagnostic stages during this screening,

INTRODUCTION

In Algeria, the incidence of colorectal cancer in 2016 is 13.7 in men and 14 in women per 100,000 inhabitants. Analysis of disease progression shows an increasing trend with an APC of +7 each year, and also increases with age. The highest incidence is observed in the wilaya of Bejaïa where it is 16 in women and 23.5 in men per 100,000 inhabitants, followed by the wilaya of Constantine with an incidence of 14.6 in women and 17.4 among men per 100,000 inhabitants. The lowest incidence is observed in Ouargla and Skikda with respective incidences of 4.6 -7.4 in women and 9.5-7.5 in men per 100,000 inhabitants, according to the East and South East Network. , Algeria 2015 [1]

In 2015, the national cancer screening committee, based on the results of updated global and national studies [2] and in particular the national epidemiological analysis which places colorectal cancer in 2nd position (just after breast cancer breast) of the most widespread cancers in the world population of all sexes, decides to introduce colorectal cancer screening in the objectives of the 2015-2016 Algerian cancer plan, which led to the establishment of pilot studies in Algeria; In this article, we present the analysis of the results of cancers detected during a mass screening operation for colorectal cancer in the Béjaia region as a national pilot study during the period 2017 to 2019.

Patients and methods

As part of mass screening for colorectal cancer in the pilot dairas of Souk el Tenine , the commune of Amizour and the daira Adekar of the wilaya of Bejaia, which spanned from January 2, 2017 to February 28, 2019, we collected, on the basis of 10,000 guests, 3002 files from citizens aged between 50 and 74 years old. Or a total participation rate of: 30.02%

Results

I. Evaluation of the effectiveness indicators of the program implemented

Lesion detection rate Cancers detected:

We detected 17 cancers in the eligible population (2685) for mass screening, representing a rate of 6‰ for colorectal cancer. The average age of people screened for colorectal cancer is 59.76 years +/- 8.2, a median of 57 years and a mode equal to 50 years. The peak age of colorectal cancers detected is located in the age group [50-54] years, followed by the age group [65-69] years, the lowest rates are observed in the age groups [55-64] years old.

The majority of cancers detected are located in the sigmoid with a rate of 47 % (8). In second place, it is at the level of the rectum that 24% (4). A rate of 12% (2) of cancers are located in the left colon and 17% (2) in the right colon.

Table 1: Age of patients with colorectal cancer in the target population

Moyenne		59.76 ans +/- 8,2
Médiane		57 ans
Mode		**50 ans**
Minimum		50 ans
Maximum		71 ans
Percentiles	25 %	52 ans
	50 %	57 ans
	75 %	68 ans

Sexe : Le sexe ratio des patients diagnostiqués d'un cancer colorectal dans le cadre du DOCCR = **0,89**

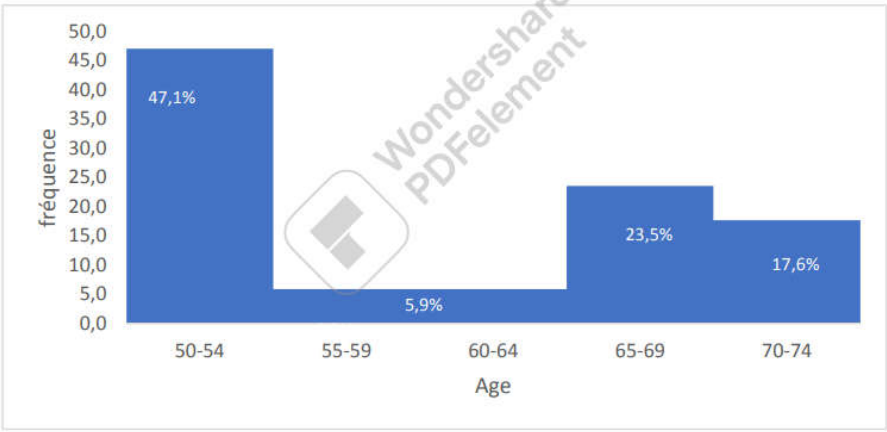
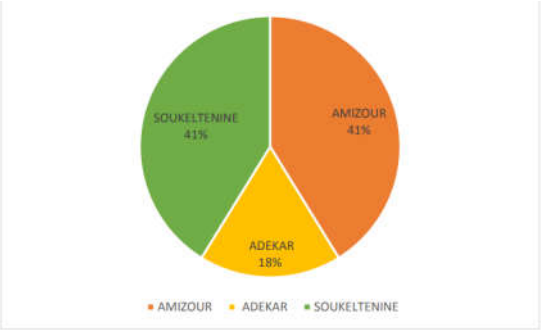
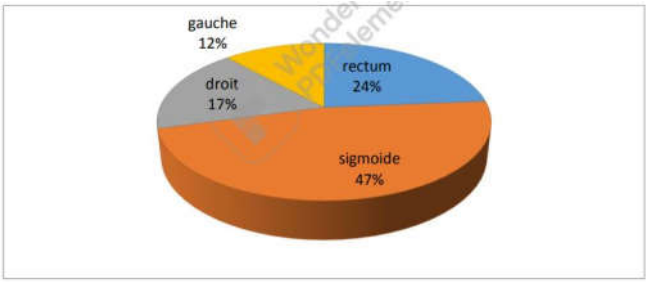


Chart 1: Distribution of colorectal cancers according to age groups



Graph 2: Distribution of colorectal cancers according to medical establishment

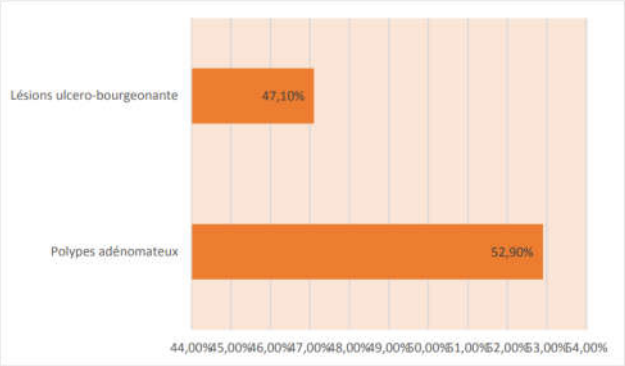


Graph 3: Topography of colorectal cancers in the population with positive test

Table 2: Macroscopic (endoscopic) appearance of cancers

Polype adénomateux	(14) 82,35 %
Lésion ulcero-bourgeonante	(3) 17,65%
Total	(17) 100%

La majorité (82,35%) des cancers colorectaux dépistés sont le résultat de dégénérescences des polypes adénomateux.



Graph 4: Macroscopic appearance of colorectal cancers in the population with a positive test

Discussion

The detection rate of colorectal cancers is equal to 6‰ on average. It is more common in women 53% than in men 47%, but statistically no difference is observed between the two sexes. This rate is high compared to what is reported in the literature; in France the rate of cancers detected is 1.7‰, in Germany in a pilot study it is 2‰ [3]. The Sex ratio is 0.89. The average age observed in our study is 59.76 years +/- 8.2. The most common age observed is 50 years. No statistical variability is observed between the cancers screened according to the establishment or the residential area. Regarding the topography of the cancers detected in our study, it does not differ from the results observed in other studies around the world: sigmoid 47% and rectum 24 %, right colon 17% and left colon 12%. It can be noted that for the age group most affected is 50-54 years, then that ranging from 60-74 years. In a pilot study carried out in England in 2010, the same age groups were observed [4]. The stage of cancers detected by the organized screening program was established according to the TNM system for classifying malignant tumors [5]. This classification only applies to carcinomas of the colon and rectum, only cancers classified histologically as [6] " adenocarcinoma" are described in this section. 53% of the cancerous lesions had a macroscopic appearance of an adenomatous polyp, 47% had a macroscopic ulcero-budding appearance on digestive endoscopy , 23.5% correspond to Haggitt stage 1 and (2) 11.8% of the lesions correspond to stage 2. It should be noted that in (6) 35% of cases these are invasive cancers which have exceeded Haggitt stage 4 and which were not

taken into consideration in this classification.[7] The colorectal cancers detected were also classified according to the 2009 TNM classification; stages 0 represent 47%, stage I 11.8%, stage II 11.8%, stage III 5.9% and stage VI 23%. Compared to the results presented in the first reports of organized colorectal cancer screening in France 2009-2011 with a number of 1,690 in men and 923 in women, 42.1% are stage I, 23% stage II, 24 .3% stage III and 10.6% stage IV [8]. The detected rate of stage VI cancers is higher in our study. These figures and rates will have a tendency to decrease after several years of mass screening or we may observe higher rates of cancers in the future. [9-10]

Conclusion

We propose in our study report a pilot strategy for mass screening of colorectal cancer whose aim is, firstly, to answer the questions of feasibility and acceptability in the Algerian field, and secondly to determine the specific performance indicators established by international scientific communities.

The effectiveness indicators are particularly important for the evaluation of mass screening of this cancer, the analysis of our data of detected cancers is necessarily a criterion of effectiveness due to the importance of the diagnostic stages during this screening,

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