

## Genetic epidemiological characterization of Tlemcen's population by prostate cancer

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Zakarya Moqaddem<sup>1,2</sup>, Ammaria Aouar<sup>2,3</sup>, Nassim Kazi<sup>4</sup>, Nafissa Chabni<sup>1</sup>, Adel Sidi Yekhllef<sup>3</sup>, Abdellatif Moussouni<sup>3</sup>, Houari Hamdaoui<sup>1,2</sup>, Sarra Khater<sup>1,2</sup>, Djamel Belkhatir<sup>2</sup>, Lotfi Habibes<sup>5</sup>, Kaoual Meguenni<sup>1</sup>

<sup>1</sup>. CancerLab Laboratory, University of Tlemcen, Algeria.

<sup>2</sup>. Laboratory of human actions' valorisation for protection of environment and application in public health, University of Tlemcen, Algeria.

<sup>3</sup>. Anthropology Laboratory, University of Tlemcen, Algeria.

<sup>4</sup>. Division of Urology, Tlemcen's teaching hospital, Algeria.

<sup>5</sup>. University of Tlemcen, Algeria.

[moqaddem.zakarya@gmail.com](mailto:moqaddem.zakarya@gmail.com)

### Abstract :

**Background :** According to WHO, prostate cancer is the second most frequent cancer in men. Prostate cancer is a complex, multifactorial disease with genetic and environmental factors involved in its etiology. The age, family history and the ethno-racial background are the strongest risk factors for prostate cancer. The work aim is the study the epidemiological, genetical and clinical aspects of prostate cancer in Tlemcen's population.

**Methods :** We made a cross-sectional study on 184 patients with prostate cancer received at the Urology Division of Tlemcen's teaching hospital, from 2011 to 2016, resident in Tlemcen city. The collected informations included : the age at diagnosis, the geographical location, family history of cancer, PSA level and Gleason score.

**Results :** The median age of our patients is 73 years with extremes between 53 to 87 years. The age group most affected is 70-80 years with 50% of all cases.

51 % of the patients are from the region of Tlemcen, followed by Remchi with 9% of the cases, then Maghnia, Hennaya, and Sabra with respectively 8%, 6% and 5%.

74% of patients have a very high PSA level (higher than 20 ng/ml). 32% of the cases have a highly aggressive cancer, and 66% with moderately aggressive cancer. The examination of family history shows that 37% of patients had family history of cancer, 45% of whom are prostate cancer. The hereditary prostate cancer are noticed in 4,9% of the cases.

**Conclusions :** This study raises a number of questions, considering the high number of family history noticed in this study, and suggests the existence of genetic determinants, and the interactions gene-environment influencing the genesis of this cancer. An earlier diagnosis is essential, according to these data, especially for men at a "high risk" of this cancer, which will constitute an essential tool for more effective anti-cancer strategy.

**Key words :** Characterization. Epidemiology, Genetics, Predisposition, Family history, Cancer, Prostate, Public health, Tlemcen, Algeria.

#### 1. Declaration of conflicts

This article was selected from ICHSMT'17 abstract book.

#### 2. Authors' biography

No Biography

#### 3. References

No reference