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Mini Review

The COVID-19 outbreak inception in Algeria: What Happened?

Le début de l'épidémie de COVID-19 en Algérie: que s'est-il passé ?

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ABSTRACT

Introduction: The novel human Coronavirus SARS-CoV-2, which caused the COVID-19 pandemic, has turned our world upside down, affecting both our physical and mental health, as well as our socioeconomic and political standing. Algeria, like any other country, has not escaped this pathogen outbreak. With many situations and a plethora of national strategies used to combat the healthcare crisis, it is easy to lose track of what occurred, making it necessary to review and present an insight into the chronological events and management strategies used during the early stage of the COVID-19 outbreak in Algeria. **Methods:** A deep web search was realized on the available free academic sites like Google scholar, Pub Med, and Web of Science, then a profound analysis was performed to obtain all necessary ideas and information. **Results:** The first case of COVID-19 in Algeria was reported on February 25th, 2020, and the most affected were the large Algerian cities with a high population density. Quarantine had both positive and negative sides to the country with many impacts on people's lives**. Conclusion:** Algeria like any other country hasn't escaped the health crisis unfortunate events nor its surrounding rumors, which makes providing and supplying information always helpful to stay up to date with what is happening in our lives and in order to help prioritize future control efforts for our country.

KEYWORDS: SARS-CoV-2, COVID-19, Pandemic, Strategies, Algeria.

RESUME

Introduction: Le nouveau coronavirus humain SARS-CoV-2, qui a provoqué la pandémie de COVID-19, a bouleversé notre monde, affectant à la fois notre santé physique et mentale, ainsi que notre position socio-économique et politique. L'Algérie, comme tout autre pays, n'a pas échappé à cette épidémie d'agents pathogènes. Avec de nombreuses situations et une pléthore de stratégies nationales utilisées pour lutter contre la crise des soins de santé, il est facile de perdre la trace de ce qui s'est passé, ce qui rend nécessaire de revoir et de présenter un aperçu des événements chronologiques et des stratégies de gestion utilisées au cours de la phase précoce de la COVID -19 épidémie en Algérie**. Méthodes:** Une recherche approfondie sur le Web a été réalisée sur les sites universitaires gratuits disponibles tels que Google Scholar, Pub Med et Web of Science, puis une analyse approfondie a été effectuée pour obtenir toutes les idées et informations nécessaires. **Résultats:** Le premier cas de COVID-19 en Algérie a été signalé le 25 février 2020, et les plus touchés ont été les grandes villes algériennes à forte densité de population. La quarantaine a eu des côtés positifs et négatifs pour le pays avec de nombreux impacts sur la vie des gens. **Conclusion:** L'Algérie comme tout autre pays n'a pas échappé aux

événements malheureux de la crise sanitaire ni à ses rumeurs, ce qui rend la fourniture d'informations toujours utile pour rester à jour avec ce qui se passe dans nos vies et afin d'aider à prioriser les futurs efforts de contrôle pour notre pays.

MOTS-CLES: SARS-CoV-2, COVID-19, Pandémie, Stratégies, Algérie.

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Introduction

The first confirmed COVID-19 case was reported in Wuhan City, China, and due to cognition limitations at the time. It was referred to as an unknown infectious disease, with clinical symptoms similar to viral pneumonia. It was later discovered to be a novel human Coronavirus known as SARS-CoV-2 due to its role in respiratory complications. Because of its high pathogenicity and transmissibility, it spread to all continents and was declared a pandemic **[1]**. Several models, including compartmental models, natural growth models, and logistic growth models, have been proposed for modeling the COVID-19 pandemic in various countries. Furthermore, the historical compartmental models SIR (susceptible-infectious-recovered) and SEIR (susceptible-exposed-infectious-recovered) and their variants are the most commonly used in forecasting human epidemic diseases **[2].**

Arab countries (Middle East and North Africa), with a population of over 436 million, have been severely affected by the COVID-19 pandemic. As of February 15th, 2022, these countries had recorded approximately 12.4 million COVID-19 cases and 162,500 deaths, but these numbers could have been even higher if it wasn't the case of limited testing and difficulties in determining the cause of death. Furthermore, Arabs have higher vaccination delay rates than the world due to rumors and conspiracy theories, where fear of serious post-vaccination side effects and misinformation about the COVID-19 vaccines are ranked at the top of the list in blocking the process of vaccination campaigns **[2].**

The general objective of our paper was to inform and enlighten with clarity what happened at the start of this health crisis in Algeria for the people of our community and everyone who were driven to believing in untruthful events.

Subjects and Methods

In this work which is contemporaneous to our current situation, we have searched and collected the few available articles on COVID-19 in Algeria from the Google scholar web base. After that we followed a deep analysis to obtain all necessary information from the different journal articles selected, to include in our brief review manuscript.

The keywords used for research of articles are: COVID-19, SARS-CoV-2, pandemic, strategies, wave, protocol, treatment, Algeria.

Results & Discussion

Eleven articles were analyzed in making of this review manuscript, where data was obtained and selected according to their importance.

COVID-19 pandemic in Algeria

In Africa, the first confirmed case was reported in Egypt on February 14th, 2020, and by the end of April, there were over 37.000 registered cases, owing to a variety of factors including the number of imported infections, and the lack of capacity to conduct COVID-19 tests. Also, poor surveillance efforts that had a great influence on the course of events. Many African countries were on high alert for incoming cases from Europe and the United States, taking precautions such as quarantining arrivals or suspending travel from affected countries **[3]**, indicating that travel is the most significant contributor to disease **[4].**

Algeria, along with Egypt and South Africa, was considered one of the three African countries with the

highest COVID-19 importation risk **[5].** The first case of COVID-19 in Algeria was reported on February 25th, 2020, when an Italian national tested positive in Ouargla. A few days later, on March 1st, two cases were reported in the Blida region in northern Algeria, following contact with two Algerian nationals who had traveled from France to attend a wedding ceremony and were COVID-19+. Following that, a cluster of cases formed, making the province of Blida the epicenter of the Algerian epidemic. Since then, the virus has progressed through various endemic phases in Algeria, with the number of national cases diagnosed gradually increasing **[6-8].** As of June 20th, there were 11.631 cases, 837 deaths, and 8324 recoveries**.** The laboratory analysis was one of Algeria's weakest links in dealing with the COVID-19 pandemic, with the low number of daily tests and relatively long test-to-result time increasing the likelihood of an asymptomatic infectious individual spreading the virus before being quarantined **[5, 7].** The containment and quarantine measures put in place in the country on March 24th were unquestionably the most effective way to stop the virus's spread. It began by prohibiting sports gatherings, followed by the closure of schools, worship places, and Mosques, as well as the prohibition of public transportation and travel restrictions such as the stopping of planes and boats from and to Algeria **[5, 6].** And the implementation of theses quarantine measures when only 264 cases were identified resulted in an improvement of the situation **[8].**

Symptoms and Treatment protocol

Despite the world health organization (WHO) press releases, Algeria was one of the first countries to adopt the Hydroxychloroquine (HQC) protocol. It was among the countries with the highest death rates in the world on April 13th, approaching 16%, and began to decrease seven days after the generalization of therapeutic protocol, to reach 7,09% on May 26th, confirming the effectiveness of the measures taken and the merits of using the hydroxychloroquine/azithromycin protocol. The later was put in place on March 23rd, for complicated cases, then was extended to all cases confirmed on April 06th **[7, 9].** As of April 2021, the protocol is only used as a last resort in severe cases. As a result of the protocol, 98.2 percent of the treated patients recovered **[9].**

Cough, fever, and asthenia were the most common clinical signs reported in COVID-19 positive patients, with biological abnormalities including elevated sedimentation rate, LDH, CRP, ALT/AST, and lymphopenia. Additionally, more than half of the cases (60%) were older patients, and men were affected more than women. Withal, 68% of COVID-19 patients, who were frequently associated with severe cases, had at least one related comorbidity such as Diabetes or Hypertension **[10].**

Social impact of COVID-19

According to a study based on taxonomic analysis, large Algerian cities with a high population density (Algiers, Blida, Oran, and Setif) are the most affected by the COVID-19 epidemic when compared to less populated cities. Furthermore, there is a strong correlation between population density and the number of COVID-19 cases in the coastal region, compared to the highlands, which is less significant. The relationship between population density and COVID-19 spread is much weaker in the southern region **[11].**

In terms of daily reported cases, after peaking in late April to mid-May, a decrease was reported due to interventions such as border bans, school closures, social distancing and the cancellation of all public gatherings after March 12th, 2020. A notable light was then shed on various factors, including an increase in daily testing and precautionary measures related to the lifting of containment measures. Therefore, a significant increase in the number of daily reported cases was observed in mid-June [12].

The COVID-19 epidemic has altered not only education but also social gatherings and rituals. The majority of teachers were compelled to quickly transition from their traditional teaching methods to online teaching, and this quick transformation has created a number of difficulties. Even yet, the most practical answer in urgent cases is distant learning. Despite its effects on the entire world, there is hope for Algeria's educational system in the future, which may see numerous adjustments after the crisis is resolved **[13, 14].**

The COVID-19 epidemic curve in Algeria has revealed multiple facets regarding daily reporting cases, primarily affected by the implemented preventive and

sanitary measures. And the epidemiological curve has revealed two significant peaks, the first in June-July and the second in September 2020. These peaks were primarily associated with the reduction of preventive measures **[15].**

Conclusion

Since cases were first reported, Algeria, like other countries, has continued to rise in numbers. The pandemic is yet to be over; the virus is still circulating among us; prevention is critical, and vaccination is required to halt viral propagation. We must all be vigilant against the infection in order to avoid another severe wave caused by the Algerian people's collective unconsciousness and the State's poor management.

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