DESCRIPTION OF COVID-19 PATIENTS ADMITTED IN AN INTENSIVE CARE UNIT IN THE SEYCHELLES ISLANDS

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ABSTRACT
Objectives: *to describe the population affected by COVID-19 infection, according to selected epidemiological, laboratory and clinical variables; in addition to estimating mortality and length of stay in the population studied.*
Design, frame of reference and patients: an observational retrospective study was carried out on seriously ill COVID-19 patients, who were admitted to the Intensive Care Unit of the H.H Sheikh Khalifa Bim Zayed Al Nahyan Hospital in the period from January 2021 to September 2021.
Results: *During the investigation, it is evident that there was a predominance of patients aged between 45 and 64 years (48,6 %), mainly affecting men (56,8 %). Most patients were not vaccinated (93,2 %), had leukocytosis (75,7 %) and normal D-dimer (41,9 %). Severe acute respiratory distress syndrome was present in 66,2 %. 60,8 % of the total patients passed away, amongst which 52,7 % of those deceased group had a stay of less than 10 days.*
Conclusions: *the population was comprised of middle-aged, male patients with a history of non-communicable, chronic diseases, without to vaccinate, diagnosed mainly with rapid antigen tests. Laboratory studies were fundamental to assess the initial state and clinical evolution, and depicting the severity of the disease leading to high mortality.*
Keywords: *intensive Care Unit; Acute Respiratory Distress Syndrome; Mechanical ventilation; COVID-19.*

INTRODUCTION

SARS-CoV-2 is a new virus that emerged in December 2019 in Wuhan, China. It belongs to the family of coronaviruses and has produced an outbreak of acute respiratory infection, with clinical presentations that can range from mild respiratory symptoms to cases of severe pneumonia and sepsis. Due to its rapid spread throughout the world, causing thousands of deaths, the World Health Organization (WHO) has classified it as a pandemic.[(1,2)]

The most common symptoms include fever, cough, and shortness of breath. In some cases, there may also be decreased sense of smell and taste, chills, sore throat, headache, general weakness, diarrhea or vomit.[(3)]

Various lesions have also been observed on the skin, on the chest or on the fingers or toes, generally in children and adolescents without other symptoms. Most cases are mild. In more serious cases, the infection can cause pneumonia, severe shortness of breath, kidney failure, and even death.[(3)]

The most serious cases generally occur in people who are elderly or who suffer from a chronic disease, such as heart disease, lung disease or any immunodeficiency.[(3)]

The clinical spectrum of SARS-CoV-2 varies from asymptomatic or paucisymptomatic forms to clinical conditions to respiratory failure requiring mechanical ventilation and support in the Intensive Care Unit (ICU), with systemic manifestations such as sepsis, septic shock or multiple organ failure.[(4)]

Most patients hospitalized in

critical or semi-critical units have severe acute respiratory distress syndrome (ARDS) or pulmonary thrombotic events, both of which are the main risk factors associated with mortality from SARS-CoV-2.[5,6] Pneumonia associated with COVID-19 is complicated in up to 15 to 40,0 % of cases, developing an ARDS. Patients with ARDS, especially in the early stages of the disease, may need moderate to deep sedation to optimize their respiratory status, allowing for a good adaptation to mechanical ventilation. [7]

Patients with COVID-19 infection, based on the percentages reported by the Centers for Disease Control and Prevention (CDC), develop: 81,0 % mild symptoms, 14,0 % moderate symptoms that require hospital care, and 5,0 % severe or critical symptoms requiring ICU admission. [8]

The Seychelles Islands, a developing nation were not exempted from the impact of this pandemic. Consequently, a group of researchers working in the ICU of the H.H Sheikh Khalifa Bim Zayed Al Nahyan Hospital (Seychelles Family Hospital), attending to seriously and critically ill patients affected by Covid-19, proposed to characterize the population affected by this disease, according to selected epidemiological, laboratory and clinical variables.

In addition, mortality and length of stay in ICU were outcomes measured. It should also be emphasized that this scientific work constitutes part of a priority for research in the country, with repercussions of the findings having impact on disease prevention in the more vulnerable groups affected by the pandemic.

MATERIALS AND METHOD

The descriptive study of case series was carried in patients with the confirmed diagnosis of a serious COVID-19 infection, who were admitted to the Intensive (ICU) of the H.H Sheikh Khalifa Bim Zayed Al Nahyan Hospital (Seychelles Family Hospital) in the period from January 2021 to September 2021.

The study population consisted of 74 patients of both sexes, from other isolation centers and hospital institutions in the country, already diagnosed with the disease in question.

To carry out the current investigation, the following inclusion criteria needed to be met:

All seriously ill patients with a diagnosis of COVID-19, both sexes, over 18 years of age who required admission to the ICU, excluding only patients who died within 12 hours of admission to the intensive care unit.

The variables studied were:

Age: in years (from 18 to 44 years, from 45 to 64 years, from 65 years and over). Sex: (female and male).

Past Medical history: (Arterial Hypertension (HTN), Diabetes Mellitus (DM), Chronic Renal Failure (CRF), Obesity or combination of diseases (more than two of the aforementioned antecedents including HTN, DM, CRF or obesity).

Vaccinated: (if at the time of admission to the ICU, the patient had been vaccinated or not).

Initial symptoms: the main symptoms at the time of admission were taken into account; from the respiratory system (cough, dyspnea, expectoration, chest

pain), digestive system (vomiting, diarrhea, nausea), general symptoms (dizziness, weakness, fever, vomiting) and combined;

When the patient suffered from more than two symptoms originating from different organ systems

Confirmation of the diagnosis of COVID-19: if it was made by antigen (Ag) or Polymerase Chain Reaction (PCR). [9]

Leukocyte count: (absolute number of total leukocytes at admission), Normal (4-10x103/mm3), leukocytosis (greater than 10,1x103/mm3), and leukopenia (less than 3,9x103/mm3)

D-dimer: normal (less than 200 ng/ml is normal), greater than this value, the clinical laboratory study is positive and even greater values of D-dimer have higher clinical significance. [10]

C-reactive protein: normal (less than 10 mg/l) greater than 10,1 mg/l the study is positive and the greater its value, similarly more clinical significance

Acute Respiratory Distress Syndrome: based on the Berlin classification (mild: PO2/FiO2 between 300-200 mmHg), (moderate: PO2/FiO2 between 200-100 mmHg) and (severe: PO2/FiO2 less than 100 mmHg) in all times with PEEP/CPAP greater than or equal to at 5 cmH2O.

Glycemia: value in which the glycemia level oscillated during your stay; less than 7 mmol/L, from 7,1 to 10 mmol/L, from 10,1 to 15 mmol/L and more than 15 mmol/L.

Kidney damage: (Yes or No): when the calculated glomerular filtration rate was below 60 ml/min, it was interpreted as kidney damage.

Liver damage: (If there was damage, when it was class B and C or There was no damage, when it was class A); according to the interpretation of the Child-Pugh Scores.

Antibiotic: whether or not antibiotics were used.

Vasoactive support: depends on whether Norepinephrine alone was used, combined with another drug or not used.

Hemodialysis: if it was applied or not applied.

Electrocardiographic alterations: the electrocardiographic alterations during the stay in the ICU were described, normal, Left Ventricular Hypertrophy (LVH), Left Bundle Branch Block (LBBB), Atrial Fibrillation (AF).

Mechanical Artificial Ventilation (VAM): It was not used or It was used (type of ventilation modality used, volume or pressure cycled).

Status at discharge: alive or deceased.

ICU stay (days): less than 10 days, from 11 to 20 days, more than 21 days.

The information obtained was processed through an EPIINFO 6 database, through bivariate analysis with the calculation of percentages. The independence test was applied through the Standard Normal test for the comparison of proportions, in order to validate some research results. The level of significance was $\alpha= 0.05$. [11]

The participation of individuals in the research depended on the ethical principles contained in various documents, namely: principles of beneficence, non-maleficence, justice and autonomy, based on the

Nuremberg Code (1947), and the Declaration of Helsinki (1989). [12]

RESULTS

In the Table, the data illustrates a predominance of patients aged between 45 and 64 years (36 patients for 48,6 %), with males being affected more frequently (56,8 %). Another fact to take into account in the population studied; was that most of them had associated chronic comorbidities, such as (HTN, DM, CKD and Obesity) being present in 25 patients (33,8 %) of the total.

Most of these patients at the time of admission to the ICU were not vaccinated (93,2 %), and in total 38 patients (51,4 %) showed combined initial symptoms affecting various organ systems, such as: cough, dyspnoea, fever, dizziness, weakness, vomiting and diarrhea.

As a fundamental diagnostic tool for the diagnosis of COVID-19 in this population, the rapid antigen test was used, resulting positive in 62,2 % of the cases.

During their admission, the studied patients showed alterations in the laboratory tests, among which were; leukocytosis, which was present in 56 patients for 75,7 %, D-dimer remained normal in most cases for 41,9 %, C-reactive protein was greater than 100 mg/l in 58,1 % of them and most of the patients had hyperglycemia (31,1 %) with fasting values between 7,1 and 10,0 mmol/L. Severe ARDS was present in 49 individuals (66,2%).

There were 33 patients with associated kidney dysfunction and 14 patients sustained liver dysfunction accounting for 44,6 % and 18,9 % of the total patients respectively.

Antimicrobial therapy was used in 93,2 % of the patients, and 60,8 % (45 patients) needed vasoactive treatment with norepinephrine. Most of the patients did not need hemodialysis (89,2 %) and electrocardiographical, 63,5 % of the patients showed a normal heart rhythm.

The pressure cycled ventilator modes were the most used when mechanical artificial ventilation was applied, implemented in 49 patients (66,2 %).

60,8 % of the patients admitted to the ICU were discharged deceased and most of the individuals had a stay of less than 10 days (39 patients, 52,7 %).

DISCUSSION

This new virus has a predilection for the respiratory tree, once it penetrates it generates an abnormal inflammatory-type immune response with increased cytokines, which aggravates the patients' condition and causes multi-organ damage. [13, 14]

During this investigation, the largest number of patients was male and aged between 45 and 64 years. This could be due to the fact that men generally work outside the home more frequently than women and therefore have a higher risk of being infected by this disease. [13, 14]

In one meta-analysis it was found that men could have a higher risk of suffering a serious SARS-CoV-2 infection, since the number of hospitalized men is 50,0 % higher than that of women.[13,14]

When examining the reasons for

the preponderance of the severe disease, the differences between men's and women's biological pathways to fight viruses were explored. In general, women tend to produce more effective and better adapted immune responses to viruses, which translates into less severe cases of COVID-19. [15] Another study carried out on deaths from COVID-19 and age distribution in 22 countries, highlights the accumulated evidence on COVID-19, showing that one of the main risk factors for mortality from this pathology is age. [16]

In most Western European countries, only 5,0 % of people who died were under the age of 60. However, in many Latin American countries such as Brazil, Colombia or Costa Rica, the proportion of people under the age of 60 who have died from causes related to COVID-19 exceeds 20,0 % of all deaths, changing the image of the lethality of the virus in young and middle-aged people. [16]

Intuitively, one could hypothesize that these differences are due to the age pyramid in each country. Indeed, in Latin America and the Caribbean, 13,0 % of the population is over 60 years old, compared to 26,0 % in Europe. However, it may not be the only explanation. For example, in the United States, the age pyramid is similar to that of Europe, but 21,0 % of people who died of COVID-19 were under 65 years of age, a figure much higher than that of Europe. [16]

This Data coincides partially with the results found by the current researchers. Ultimately, all researchers do concur that increased amount of research is still needed around this new pandemic. During the period of investigation, it was observed that most of these patients had comorbid illnesses; with chronic non-communicable diseases such as high blood pressure, diabetes mellitus, and chronic renal failure in patients who were also obese. All these afore-mentioned ailments are important risk factors to take into account when assessing their possible evolution and final outcome.

These chronic diseases had already produced damage to vital organs, leaving these patients susceptible pathophysiological changes produced by the virus. A scientific study carried out in the province of Holguín (Cuba) coincides with these previously stated studies. [17] Other studies presented similar results. [18,19]

As can be seen, 93,2 % of the patients had not been vaccinated when they were admitted to the ICU. This could have resulted in a high incidence of severe cases in a population that was at risk, results coinciding with the literature already published surrounding COVID-19. Over the months of February and March, the Seychelles Islands applied the vaccination system for its entire population over 18 years of age, and despite this, there were patients who continued to refuse to receive the immunization scheme. [20]

Despite this, three months after the vaccination campaign was initiated, there was evidence of a substantial decrease in the incidence of severe cases in the ICU, divulging the clear benefits of the vaccination program.

The WHO recommends vaccination against COVID-19 as a fundamental primary prevention tool to limit the health and economic effects of the pandemic. [20]

The purpose of vaccinating against COVID-19 is reducing the morbidity and mortality caused by the disease and avoiding the collapse of health systems helping to maintain their capacity to respond to the health needs of the population. [21]

The initial symptoms suffered by the patients were non-specific and included: cough, dyspnoea, expectoration, chest pain, vomiting, diarrhoea, nausea, dizziness, weakness, fever and vomiting. The respiratory clinical manifestations were generally more common symptoms in this disease, with cough and dyspnoea being the most frequent among all of them.

In these 74 patients studied, the definitive diagnosis was made using the rapid antigen test for COVID-19 and, to a lesser extent the polymerase chain reaction test (PCR). Clinical symptoms and previous contact with patients who tested positive, also served as criteria to strengthen the diagnosis of COVID-19. This comprehensive assessment with epidemiological, clinical and laboratory tests were used in the international literature (19) and national protocols.

When the patients were received in the ICU, the researchers, in order to define their current status according to their severity carried out different clinical laboratory studies, among which was: the leukocyte count, showing in a large part of them (75,7 %) total counts greater than 10,1x103/mm3 (Leucocytosis). [22, 23]

Almost all patients had granulocytosis in the total white cell count, associated with severe lymphopenia. This finding caught the attention of the treating physicians at that time; striking data because the disease in question was caused by a viral agent. This could perhaps be explained by the fact that a large part of the individual probably had a superimposed bacterial infection, which could later be aggravated, when the patients were subjected to invasive procedures typical of intensive care units, for example: mechanical ventilation artificial, venepunctures and urinary catheters. [22,23]

These results contradicted with that published in two articles in 2020, where they suggested that leukocytes may be decreased with total values in severe cases less than $<2 \times 10^9$ /L. Lymphopenia either moderate or severe, with absolute values of e $0,5\text{-}1 \times 10^9$/L and $<0,5 \times 10^9$/L, respectively is associated with a higher risk of developing ARDS as well as a higher probability of disease severity and admission to an intensive care unit. [22,23]

During the scoping review carried out by the group of researchers, there was a study that, despite not finding an evident leucocytosis in patients with COVID-19, showed that the mean number of leukocytes was higher in the group of patients who died, but it was not significantly different. However, the mean number of neutrophils was higher in the group of patients who died and had a tendency to be statistically significant. [19]

Another study published on this topic in 2020 by Spanish

researchers, stated that 85,0% of patients with severe COVID-19 have lymphopenia, mentioning within their article another studie by and Chen et al, published in The Lancet magazine. [24]

The Spanish researchers also displayed results from a study, stating that the average number of lymphocytes in COVID-19 patients in the ICU is ≤800 cells per mm3 of blood, a number below normal (>1,000). This illustrates the presence of lymphopenia in COVID-19 patients in ICUs and that the persistence of lymphopenia is a sign of poor prognosis in terms of survival. [25]

Another study that was taken into account by the researchers was the quantitative value of D-dimer (DD), which, despite being normal in most of those studied, was also significantly altered in a large part of the patients. This explains that from early on in the natural history of the disease, there was a tendency in this population at risk, to suffer from prothrombotic states that could finally lead to thrombotic events and cause a torpid and finally fatal evolution of the patients. [26]

There are various studies justifying the use of D-dimer as the main specific biomarker of the formation and degradation of fibrin clots, and its use as a prognostic tool in COVID-19 patients. [26]

Preliminary studies have stated that the majority of deaths caused by SARS-CoV-2 are frequently associated with the presence of coagulation disorders, [27] related to the progression and severity of the disease. [26]

They also demonstrated that in patients with severe disease (59,6 %), 46,4 % of them had elevated D-dimer levels. [28] Another study also observed a high level of the marker with the higher disease severity, which can strengthen arguments for its use as a predictive factor [26,29] in the evolution of the disease.

One of the most feared and frequent complications in ICUs is the presence of Adult Respiratory Distress Syndrome, a complication that was present in a mild, moderate and severe form in all the patients who were treated in this service, although the severe form manifested itself significantly (66,2 %). This was justified by the pathophysiology of this viral disease, which occurred in a population with high comorbidity and without previous vaccination.

The ventilated patients in prone position (6,7 % of all ventilated patients) required high levels of positive pressure at the end of expiration (Peep greater than 12 cmH2O), together with high levels of Inspired Fraction of Oxygen (FiO2 greater than 90,0 %), followed by arterial blood gases up to 3 times a day, depending on their condition and clinical evolution. [30]

They were also kept under continuous monitoring of FiO2 by pulsoximetry and expired CO2 by capnography. Regarding this, the researcher Oscar Vera Carrascon recommends starting, in the initial stage of ARDS caused by COVID-19, with either volume-cycled or pressure-cycled modes of ventilation, but always applying the protective ventilation principles. [30]

Another frequently used laboratory test in this environment was the

measurement of blood sugar glucose. Hyperglycemia is known to be associated with poor evolution and higher mortality in critically ill patients. For this reason, strict control in diabetics with infection and in patients using vasoactive drugs or steroids was paramount, and part of the protocol designed by the hospital caring for these COVID-19 patients. [31,32]

It was possible to maintain, for the most part, glycemic values between 7,1 and 10 mmol/L, using doses of simple insulin according to the protocol, at breakfast, lunch and dinner. In some cases, continuous insulin infusions were utilized. In addition, as part of the hyperglycemia treatment, slow insulin was implemented when necessary at 10 pm, in order keep the patient normoglycemic during the night. [31,32]

Several researchers suggest that hyperglycemia is associated with an increased risk of different types of infection and increased morbidity and mortality in patients with severe acute respiratory syndrome (SARS) and optimization of glycemic control reduces complications, including infections. In this context, practice should be directed at maintaining good glycemic control in patients with and without COVID-19, as this can help reduce the risk of infection and modulate the severity of the disease. [31,32]

They also agree that insulin is the drug of choice for the treatment of hyperglycemia in the hospital, and the most effective and safe insulin administration regimens are continuous intravenous infusion, in critically ill patients. Subcutaneous administration of insulin, adapted to the type of nutrition, in non-critical patients. [31,32]

As can be seen in the Table, it is evident that 33 patients developed kidney damage, some of them acute kidney failure, other patients with chronic kidney failure and some of the latter had chronic damage that worsened during the new disease. In another section, it was observed that only 14 patients developed liver damage without reaching serious coagulation disorders or developing hepatic encephalopathy. [24]

For a safer, holistic treatment, at all times the intensivist group calculated the medications, including the use of antibiotics, according to the creatinine clearance and liver function. It should be noted that despite medical support and medications, in order to maintain renal support, only 8 patients needed haemodialysis, which was implemented according to clinical criteria and the values of the laboratory tests that these patients showed during their evolution (according to protocol). [24]

There were no complications during the dialysis procedure. Coinciding with current data, Cheng et al. [24] in a retrospective study of 1392 patients and using definitions based on creatinine, found that approximately 7,0 % of patients developed AKI, with approximately 3,0 %, 2,0 % and 3,0 % in stages 1, 2 and 3 of acute kidney injury, respectively. Most were seriously ill and 15,0 % received dialysis. On the other hand, statistical data collected in 11 ICUs from different parts of the world showed an incidence of AKI grade 2–3 of

33,0 % in Pittsburgh and 35,0 % in London, but it varied from 8,0 % in Montreal to 72,0 %. in Ghana. Use of renal replacement therapy ranged from 0% to 37,0 %, with some centres, especially in the UK, having 25,0 % to 30,0 % dialysis patients. [33]

As reflected throughout the investigation, 93,2% of the sample population required antibiotic therapy, based on their clinical status, the results of fundamental laboratory studies depicting the magnitude of the infection. [34]

The use of antibiotics was not restricted even if the patient that had dysfunction of other organ systems. Betalactams (Augmentin, Piperacillin plus Tazobactan, Cephalosporins and Carbapenems) and Quinolines were frequently used. Aminoglycosides were applied depending on the sensitivity of the blood culture. [34]

Antifungals were also used when the presence of opportunistic fungal infections was demonstrated. Their use would comply at all times with what was proposed by the group of authors, and the guidelines for the use of antibiotics in patients with Covid-19. [34]

Support with vasoactive drugs is another fundamental pillar in the support and treatment of critical patients; these individuals were not exempted from it. During their stay in the ICU, norepinephrine was the vasoactive drug that was most used in the 45 patients (60,8 %) receiving vasopressors, to achieve a Mean Arterial Pressure (MAP) greater than 65 mmHg and ensure correct perfusion to target organs. [35]

Double vasoactive support was reserved for those who did not achieve a good MAP, despite support with norepinephrine or, in addition, due to their clinical condition and previous health history, needed a more powerful effect that could be potentiated with double vasoactive support. Regarding this point, it was observed that most of these patients had severe respiratory distress, needing high sedation and analgesia (with a mixed combinations of Midazolam, Morphine, Fentanyl or Propofol). [35]

The patients with advanced age, or a history of previous involvement of target organs needing deeper levels of sedation to achieve synchrony with the ventilator and improve oxygenation, were consequently more predisposed to the haemodynamic instability associated with deep sedation. The investigators avoided the use of muscle relaxants in this population. [35]

There is currently not enough evidence in the literature about specific hemodynamic support in COVID-19 patients, and most of the recommendations are extrapolations from the usual management of critically ill patients, especially the recommendations of the Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock: 2016. [35]

The largest number of individuals had sinus rhythm, with lesser amounts showing left ventricular hypertrophy, left bundle branch block and chronic atrial fibrillation (with controlled rate) in electrocardiogram, the latter appearing commonly during support

with vasoactive drugs, sometimes requiring the use of antiarrhythmic and even electrical cardioversion in some cases. [36]

A Cuban study reaffirms that in patients with COVID-19, infection is a sufficient condition to cause cardiac arrhythmias in the absence of previous structural heart disease. Direct cardiac damage, myocarditis, myocardial ischemia, and heart failure are favourable scenarios for the development of atrial fibrillation (AF) and ventricular arrhythmias. [36]

Another of the functions that are supported in the ICU is the respiratory function, and 60 of the patients studied required artificial mechanical ventilation (AMV) during their stay. Pressure cycled modes; BiPap (Bilevel Positive Airway Pressure), PSIMV (Synchronized Intermittent Mandatory Ventilation with Pressure Support) and APRV (Pressure Release Airway Ventilation) were used, achieving better synchrony, better ventilatory parameters, improved oxygenation and therefore less sedation, when compared to volume-cycled modalities. With the exception of PRVC (Volume Controlled and Pressure Regulated Ventilation) which showed good results and was therefore applied to 14 patients. [37]

A scientific investigation in Argentina, describes that the initial ventilation mode used during AMV in 100% of the cases was volume control - continuous mandatory ventilation (VC -CMV), [38] results that do not agree with those of the series of cases in analysis. Another Chilean study on MV in patients with COVID-19 recommends both ventilator modalities), as long as protective ventilation is applied. [38]

Finally, the largest number of patients was discharged comprised of those deceased from the ICU, around 60,8 %. These figures coincide with the data reported and expected in an ICU, in terms of mortality, bearing in mind that these patients had comorbidities with high risk of complications. [26]

In addition, they developed the severe form of ARDS during their evolution, requiring in some cases to go as far as invasive ventilation in the prone position, as previously documented. Researcher Del Carpio Orantes however found a 25,0 % mortality rate in his series of cases. [26]

CONCLUSIONS

The study population was mainly included middle-aged male patients with a combined history of chronic non-communicable diseases and unvaccinated, diagnosed mainly with a rapid antigen test for COVID-19. Laboratory studies showed a fundamental role in the evaluation of its initial state and clinical evolution. These patients had high mortality despite the comprehensive invasive support to which most patients were subjec

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RESUMEN

Objetivos: *Describir la población afectada por la infección por COVID-19, según variables epidemiológicas, de laboratorio y clínicas seleccionadas; además de estimar la mortalidad y el tiempo de estancia de la población estudiada.*

Diseño, marco de referencia y pacientes: *Se realizó un estudio observacional retrospectivo en pacientes gravemente enfermos de COVID-19, que ingresaron en la Unidad de Cuidados Intensivos del Hospital H.H Sheikh Khalifa Bim Zayed Al Nahyan en el periodo de enero de 2021 a septiembre de 2021. .*

Resultados: *Durante la investigación se evidenció que hubo predominio de pacientes con edades entre 45 y 64 años (48,6 %), afectando principalmente a hombres (56,8 %). La mayoría de los pacientes no estaban vacunados (93,2 %), tenían leucocitosis (75,7 %) y dímero D normal (41,9 %). El síndrome de dificultad respiratoria aguda grave estuvo presente en el 66,2 %. Falleció el 60,8 % del total de pacientes, de los cuales el 52,7 % de los fallecidos tuvo una estancia inferior a 10 días.*

Conclusiones: *la población estuvo conformada por pacientes masculinos de mediana edad, con antecedentes de enfermedades crónicas no transmisibles, sin vacunar, diagnosticados principalmente con pruebas rápidas de antígenos. Los estudios de laboratorio fueron fundamentales para valorar el estado inicial y la evolución clínica, así como representar la gravedad de la enfermedad que conduce a una alta mortalidad.*

Palabras clave: *unidad de Cuidados Intensivos; Síndrome de distrés respiratorio agudo; Ventilacion mecanica; COVID-19.incipient, in the municipality it is to 41.67 %.*

Conclusions: difficulties exist as much in the acting as in the professional competition in the execution of the program of arterial hypertension in the areas of health, affecting the quality in their execution for the control of the hypertension.

Key words: *hypertension; investigation; epidemiology.*

Table. Description of COVID-19 positive patients, admitted to the Intensive Care Unit of the H.H Sheikh Khalifa Bim Zayed Al Nahyan Hospital (Seychelles Family Hospital) in the period from January 2021 to September 2021.

Variables	Categories	Total (74 patients-100%)	
		No	%
Age (Years)	18-44	17	23,0
	45-64	36	48,6
	More than 64	21	28,4
Sex	Female	32	43,2
	Male	42	56,8
Personal medical history	Arterial hypertension	21	28,4
	Mellitus diabetes	3	4,1
	Chronic renal failure	1	1,3
	Obesity	2	2,7
	bronchial asthma/COPD	2	2,7
	Combined (HTN, DM, CKD, Obese)	25	33,8
	health history	20	27,0
Vaccinated	Yes (2 Doses)	5	6,8
	No	69	93,2
Initial symptoms	Respiratory system	32	43,2
	Digestive system	1	1,3
	General manifestations	3	4,1
	Combined	38	51,4
Confirmation of the diagnosis	Antigens +	46	62,2
	PCR+	28	37,8
Leucograma	leukocytosis	56	75,7
	leukopenia	0	0
	Normal	18	24,3
D Dimer (ng/ml)	Less than 200	31	41,9
	201-400	14	18,9
	401-800	14	18,9
	801-1600	6	8,1
	1601-3200	9	12,2
C Reactive Protein (mg/l)	Less than de 10	2	2,7
	10,1- 100	29	39,2
	More than 100,1	43	58,1
ARDS	Light	16	21,6
	Moderate	9	12,2
	Severe	49	66,2

Glycemia (mmol/L)	**Less than 7**		**19**	**25,7**
	7,1-10		23	31,1
	10,1-15		20	27,0
	More than 15		12	16,2
Kidney injury	Yes		33	44,6
	No		41	55,4
Hepatic injury	Yes		14	18,9
	No		60	81,1
Antibiotic	Yes		69	93,2
	No		5	6,8
Ionotropic Support	Norepinephrine		45	60,8
	Norepinephrine + other drug		11	14,9
	No		18	24,3
Hemodialysis	Yes		8	10,8
	No		66	89,2
electrocardiographic changes	Normal		47	63,5
	LVH		14	18,9
	LBBB		3	4.1
	AF		10	13,5
IMV	Yes	Volume	11	14,9
		Pressure	49	66,2
	No		14	18,9
Discharge status	Alive		29	39,2
	Deceased		45	60,8
Stay in the ICU (Days)	Less than 10		39	52,7
	11 -20		23	31,1
	More than 21		12	16,2