

SARS-COV-2 manifestations among Madinah district patients, Basrah, IRAQ

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Abstract:

Objective: To evaluate the demographic manifestation of COVID-19 infections in Madinah district, Basrah province, Iraq in regards of age, gender, occupation, place of residence, travel history, contact with COVID-19 patients, presence of chronic illness especially cardiovascular disease, hypertension, Diabetes Mellitus.

Materials and Method: 450 patients confirmed to have COVID-19 disease by PCR for SARS-CoV-2 in Madinah district at north of Basra, Iraq were included in this study. The data collection from those patients were obtained by a designed form during initial interview. The study was performed at Madinah General hospital from 25th of March 2020 till 25th of July 2020.

Results: Of the total 450 patients, 246 patients were males and 206 were females representing 54.7% and 45.3% respectively. Male to female ratio was 1.2:1. Patients age range from 3-93 years. The majority of patients were in the 20-50 years age group making 66.3% of the total patients' number. Fever and lower respiratory tract symptoms are predominant. History of cardiovascular disease, hypertension and DM was found in 5.1%, 16.7% and 14.2% respectively.

Conclusion: COVID-19 was slightly more common in male patients, age range from 20-50 years and in those with contact history with COVID-19 patients in Madinah, Basra. Fever and symptoms of lower respiratory tract infection prevail.

Keywords:

Introduction:

The coronavirus disease 2019 (the COVID-19) is a respiratory disease first detected in December 2019 in Wuhan, China ⁽¹⁾. The WHO announced that the official name of the 2019 novel coronavirus is coronavirus disease (COVID-19), and the current reference name for the virus is severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) ⁽²⁾. COVID-19 had affected over 10 million people and killed more than 500,000 in over 200 countries worldwide as of 29 June 2020. ⁽³⁾ In Iraq, the 1st case of COVID-19 was recorded in Najaf city on 24th of February 2020, while the 1st reported COVID-19 case in Basra was recorded in 29th of February 2020. The major symptoms of Coronavirus disease 19 are of lower respiratory tract infection, but otolaryngological symptoms were recorded in some cases among other upper respiratory tract infection. ⁽⁴⁾

In this study, we will show the demographic manifestation in all COVID-19 patients in Medina district Basra, Iraq.

Materials And Method:

Study design and setting: This a prospective, descriptive study which was done at the Infection control unit and the Corona virus quarantine ward in Madinah General Hospital, Basra, Iraq.

Patients: The study population were patients with PCR positive SARS-CoV-2 Corona virus disease 19 in Madinah district, Basra, Iraq during the period from March 25th 2020 till July 25th 2020.

Data collection: The patients’ demographic data were collected by reviewing the patient’s data records in infection control unit or the quarantine ward in Madinah General hospital. The patient’s identities kept hidden and approval from the hospital directory, ethical and legal sections were obtained.

Statistical analysis: The data were analyzed using the SPSS (SPSS Inc., Chicago, IL, USA) version 26.

Results:

Four hundred fifty patients were enrolled in this study, of them 246 were males and 204 females representing a percentage of 54.7% and 45.3% respectively. This shown in figure [1].

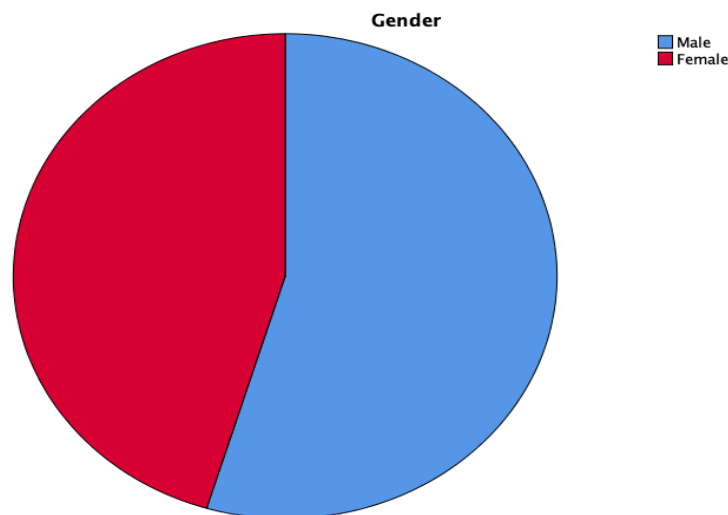


Figure [1]: frequency of male and female patients in Madinah General hospital.

The mean age of the studied population was 40.2 ± 16.38 years (range: 3-93 years). The distribution of the age groups in the studied population was subdivided every 10 years period for easy clarification except the last age group was for those aged more than 70 years that include the elderly people from 71 years and more tell the oldest patient (age 93 years). The age group classification is shown in table [1]. And the distribution of the patients age group curve is shown in figure [2].

Table [1]: frequency and percentage of age group of the studied population

	Age group	Frequency	Valid Percentage	Cumulative percentage
1	<10 yrs	14	3.1	3.1
2	10-20 yrs	30	6.7	9.8
3	21-30 yrs	97	21.6	31.3
4	31-40 yrs	107	23.8	55.1
5	41-50 yrs	94	20.9	76.0
6	51-60 yrs	57	12.7	88.7
7	61-70 yrs	36	8.0	96.7
8	>70 yrs	15	3.3	100
	Total	450	100%	

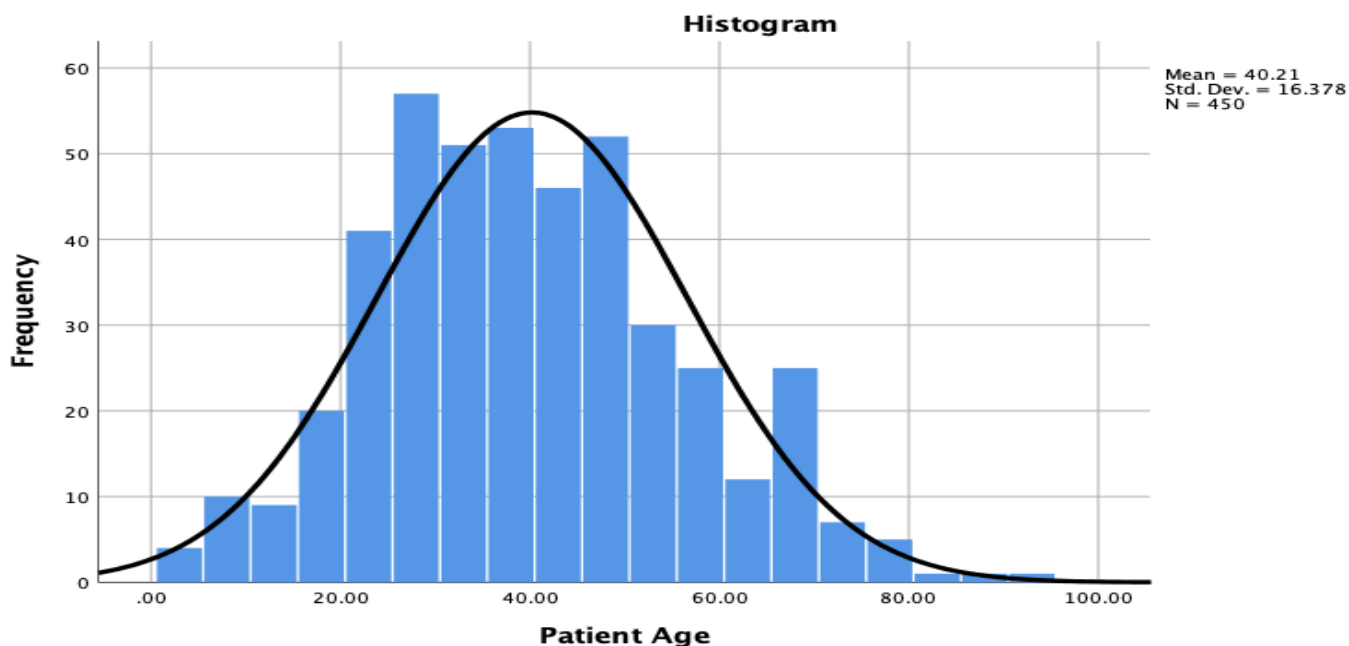


Figure [2]: age group distribution in Madinah General hospital.

326 patients develop symptoms of SARS-COV-2 infection representing (72.4%) of cases. The most common symptoms were fever (77.6 %), cough (75.7 %) and headache (38 %). This shown in figure [3] and table [2].

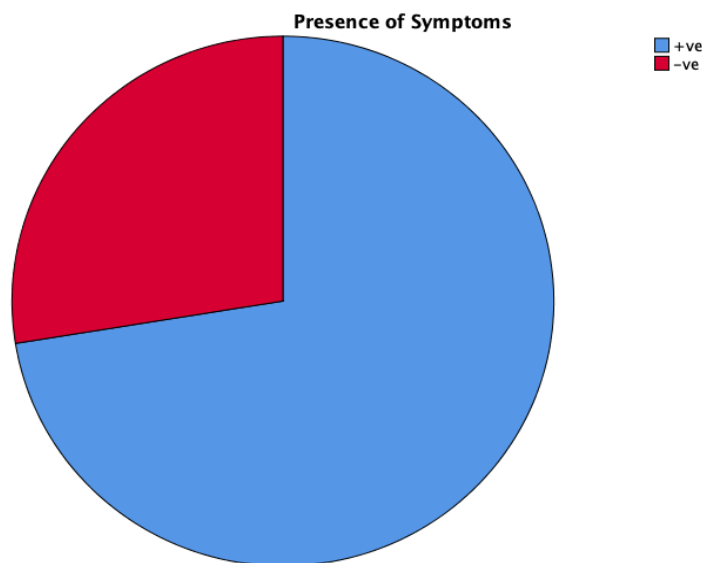


Figure [3]: percentage of symptomatic patients in Madinah General Hospital.

Table [2]: the symptoms reported by patients in Madinah General Hospital with their corresponding incidence and percentage from total symptomatic patients.

	The reported symptoms	Number of reported patients	Percentage from total symptomatic patients
1	Fever	253	77.6 %
2	Wheezy chest	65	19.9 %
3	Sore throat	87	26.6 %
4	Runny nose	38	11.6 %
5	Anosmia	62	19 %
6	Cough	247	75.7 %

7	Cyanosis	12	3.6 %
8	Dyspnea	54	16.5 %
9	Malaise	49	15 %
10	Diarrhea	24	7.3 %
11	Vomiting	44	13.4 %
12	Headache	124	38 %

From the 450 patients enrolled in this study, 137 patients, representing (30.4 %), recovered completely from the disease, 299 patients were still actively treated from the disease and representing (66.4%), while only 14 patients unfortunately died from the illness representing (3.1%) of the total patients. This is shown in figure [4].

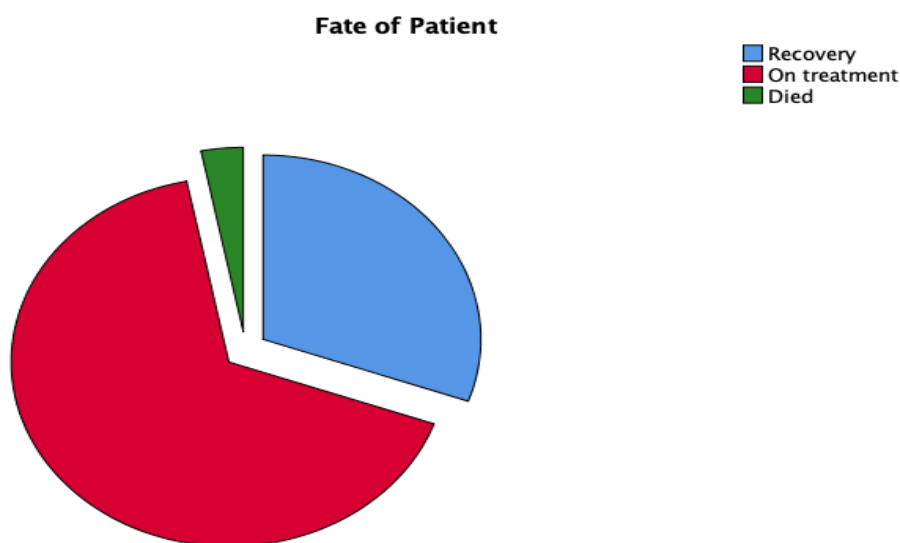
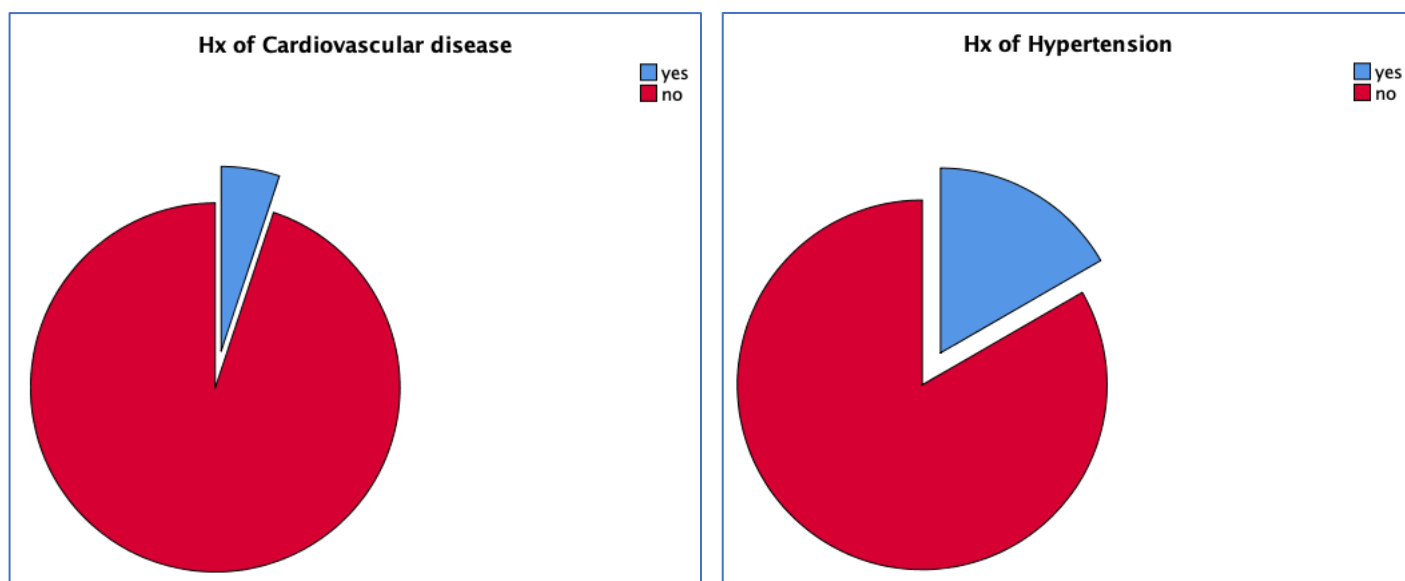


Figure [4]: Fate of patient’s distribution in Madinah General hospital.

Previous history of chronic illness was noted as follow: 23 patients (5.1%) had positive history of cardiovascular disease, 75 patients (16.7%) had hypertension, 64 patients (14.2%) had Diabetes Miletus and only 8 patients (1.8%) had diagnosed malignancy treated with chemotherapy alone or in combination with radiation. This is shown in figure [5].



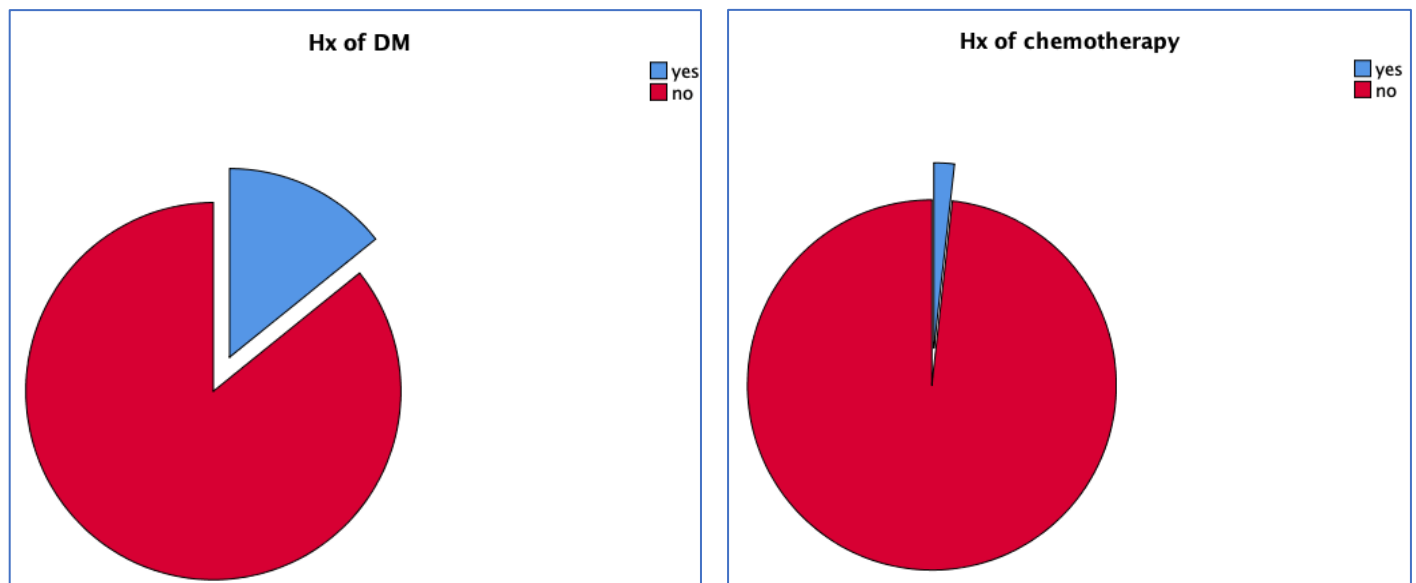


Figure [5]: History of chronic illness distribution in Madinah General Hospital

Discussion:

The 1st case diagnosed with SARS-COV-2 in Madinah, Basrah was recorded in March 25th 2020. Later on, cases of COVID-19 were gradually noticed and the spread of infection took place on word during the period of this study. ⁽⁵⁾

We found that SARS-COV-2 infection is slightly more in male than female patients with male to female ration is 1.2:1 with no significant implications. This was similar to the findings of Haung C et al ⁽⁶⁾ and Chen N et al ⁽⁷⁾ who reported no statistically significant difference between male and female rate of infection with SARS-COV-2 virus, while Xu X et al ⁽⁸⁾ reported high incidence of SARS-COV-2 infection in females probably due to small sample sized taken during initial COVID-19 infection in China.

Our study demonstrates that most individual infected with SARS-COV-2 virus are young adults between 20-50 years old representing about 68% of total sample size with mean of age 40.2 ± 16.38 years. This was identical with the finding of Yang W et al ⁽⁹⁾ and Cao Y et al ⁽¹⁰⁾ who reported a mean of age (45.11 and 46.62) years respectively. While, Yin X et al ⁽¹¹⁾ reported a mean of age 57.43 years with predominant infection in age group 60 years and more (more than 50% of cases). This might be attributed to the previous authors only include hospitalized patients with SARS-COV-2 infection while the unhospitalized are not included in their study.

From 450 patients included in this study, 72.4 % were symptomatic. The most frequently encounter symptoms were fever, cough and headache. Similar findings present in Goshayeshi L et al ⁽¹²⁾, Haung C et al ⁽⁶⁾, Chen N et al ⁽⁷⁾, Wang D et al ⁽¹³⁾ and Yang W et al ⁽⁹⁾. Guan W.J et al ⁽¹⁴⁾ reported that fever is not the commonest encounter symptom, instead dry cough was the most frequent symptom in their study. No atypical features like atypical dyspnea or otological symptoms were noted during the study period. ⁽¹⁵⁾

Our study showed that more than 66% of infected patients are still being treated for SARS-COV-2 infection, 30% cured and unfortunately 3% died during the 3 months period of this study. This was against what Goshayeshi L et al ⁽¹²⁾ stated in their study as they reported 37% mortality rate. This is because their study was conducted in patients with moderate to severe COVID-19 infection who were hospitalized in ICU.

Associated concurrent medical illnesses were noted. The commonest finding was hypertension (16.7%), Diabetes Mellitus (14.2%), cardiovascular diseases (5.1%) and history of malignancy with previous or concurrent history of chemotherapy or radiotherapy or compensation is noted in (1.8%) of affected individuals. Similar results were found in Goshayeshi L et al ⁽¹²⁾, Artenz M et al ⁽¹⁶⁾ and Xiao K et al. ⁽¹⁷⁾.

Conclusion:

COVID-19 infection in Madinah, Basra is slightly more in males than females, affecting young to middle aged adults with predominant fever and lower respiratory tract symptoms in affected individuals.

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Nil.

Conflicts Of Interest

There are no conflicts of interest.

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