

The first case of COVID-19 in Far Western Province of Nepal

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Recently emerged worldwide public health problem coronavirus disease (COVID-19) is an infectious disease caused by a severe acute respiratory syndrome coronavirus 2(SARS Cov-2); end of 2019 it was identified as the cause of a cluster of pneumonia cases in Wuhan, a city in the Hubei Province of China. It rapidly spread, resulting in an epidemic throughout China, followed by pandemic throughout the world as well as in Nepal. Finally far western province became the fourth case of Nepal and index case of this province. A 34 year old male presented Seti Provincial hospital fever clinic with the complaints of fever, cough, sore throat and history of travel from Dubai to Nepal. He was kept in isolation and throat swab result was positive for SARS CoV-2. Other systemic examination and routine investigation were within normal. Course of illness was uneventful and managed conservatively. First, second and third RT-PCR became positive and fourth and fifth turned into negative and discharged at the 29th day of admission.

Keywords: COVID 19; isolation; nasopharyngeal swab; fever; RT-PCR

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INTRODUCTION

At the end of 2019, a novel corona virus was identified as the cause of a cluster of pneumonia cases in Wuhan, a city in the Hubei Province of China. It rapidly spread, resulting in an epidemic throughout China, followed by an increasing number of cases in other countries throughout the world. The World Health Organization (WHO) declared it a public health emergency of international concern.

In February 2020, the World Health Organization the disease COVID-19, which stands for coronavirus disease 2019 and the causative agent is severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).^{1,2} In 13th January 2020, Thailand reported the first confirmed case of the novel coronavirus outside China and that was confirmed as an imported case from Wuhan, China.³ 20 January 2020 The USA reported its first confirmed case, in someone who had returned to Washington State on 15th January 2020 after visiting family in Wuhan, China.⁴ A 32 year old Nepalese student at Wuhan University of Technology, Wuhan, china, became the first case of COVID-19 on Jan 13, 2020.⁵

CASE REPORT

A 34 years man, foreign employee, from Dhangadhi, Kailai, came to the fever clinic of Seti Provincial Hospital to rule out COVID-19, as he had complaints of fever for 3 days, dry cough and sore throat for one day and travel history from United Arab Emirates to Dhangadhi. He had travelled via aero plane from Dubai to New Delhi, New Delhi to Kathmandu and Kathmandu to Nepalgunj. He came from Nepalgunj by auto to Kohalpur then by bus to Dhangadhi. He was non-smoker, occasional alcohol consumer, and non-vegetarian, free from co morbidities. Fever was 39.1 °C without chills and rigor and subsided with paracetamol in two days. Cough and sore throat remained for 4 days and improved with salbutamol cough expectorant syrup. He developed diarrhea which was three to four loose stool daily for three days and improved with oral rehydration salt (ORS). He denied complaints of body ache and fatigue and dyspnoea. His vitals, general and systemic examination were within normal. His nasopharyngeal swab was taken and sent for Real Time Polymerase Chain Reaction (RT-PCR) for Severe Acute respiratory Syndrome Coronavirus-2(SARS- CoV-2) to

National Public Health Laboratory (NPHL), Kathmandu, and came to be positive.

Immediately he was shifted to COVID-19 isolation ward of this hospital. Detail clinical evaluation [Table 1] chest X-ray [Figure 1] and other relevant investigations [Table 2]

were done all parameter were normal. His first, second and third RT-PCR for SARS-CoV-2 became positive done at interval of a week and fourth and fifth RT-PCR were negative done at, interval of 2 days [Table. 3]. He was managed symptomatically and discharged on 28th day of admission.

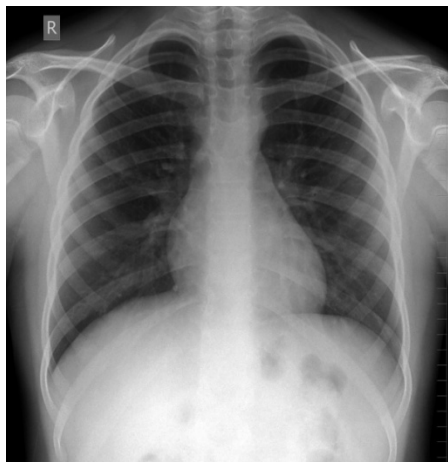


Figure1: Chest X-ray Posterior-Anterior (PA) view: Showing normal features.

Table 1: Clinical Features		
Clinical Features	Results	Remarks
Fever	For 3 days (max.temp. 38.1 °c)	
Cough	2days	
Sore throat	2 days	
Diarrhoea	3days	After admission
Myalgia	No	
Fatigue	No	
Difficulty in breathing	No	
Chest pain	No	
Loss of taste	No	
Nausea/vomiting	No	
Headache	No	
Confusion	No	
Features anxiety	No	
Insomnia	No	
Vitals	Within normal limits	
Systemic Examination	Normal	

Table 2: Laboratory reports

Particulars	Day of admission	7 th day	27 th day	Remarks
Random blood sugar	106 mg/dl	100 mg/dl	116 mg/dl	
Urea	36 mg/dl	34 mg/dl	33 mg/dl	
Creatinine	1.1mg/dl	1.0mg/dl	0.9mg/dl	
Sodium	142 mmol/l	140mmol/l	145 mmol/l	
Potassium	3.8 mmol/l	3.8 mmol/l	3.8 mmol/l	
Total WBC	6600per cumm	6800percumm	6900per cumm	
Neutrophil	76%	74%	75%	

Lymphocyte	20%	18%	20%	
Monocytes	5%	6%	6%	
Basophil	1%	2%	1%	
Platelets	230000per cumm	233000per cumm	235000per cumm	
Hemoglobin	16 gm%	16.1 gm%	16 gm%	
C-reactive protein(CRP)	Non Reactive	Non Reactive	Non Reactive	
Liver Function Test	Within normal limit	Within normal limit	Within normal limit	
Urine routine examination	Normal	Normal	Normal	
K-39	Negative	-	-	

Table 3: RT-PCR report of (SARS-CoV-2)

Sample	First	Second	Third	Fourth	Fifth
Report of RT-PCR	Positive	Positive	Positive	negative	Negative

DISCUSSION

The first confirmed case of COVID-19 in the Far western Province (Index Case) presented with mild clinical symptoms for 3 days only suggestive of mild symptoms various studies concluded that COVID 19 were classified as asymptomatic, mild, moderate pneumonia, severe pneumonia and critical.⁶ He had come from United Arab Emirates which was the first country in the Middle East to report confirmed case of COVID-19 and there were many cases but denied direct contact. This case belongs to the young age group with no co morbidities and did not develop complications as our expectation as well as shown in different studies which indicate co morbidities like diabetes mellitus, heart disease, chronic lung disease, chronic kidney disease, age above

60years and immune-compromised were likely development of complications^{7,11} and rapid worsening and even death.^{8,9}

A study done by Xiao AT et al of 56 patients with mild to moderate illness found the median duration of viral RN shedding from naso- or oro-pharyngeal specimen was 24 days, and maximum was 42 days in this case patients was mild symptomatic for initial 3-5 days and became RT- PCR for SARS Cov-2 became negative 26th day of admission.¹⁰

COVID 19 related laboratory findings were within normal unlike studies showed lymphopenia, leucocytosis or leucopenia, elevated aminotransaminase level, elevated lactate dehydrogenase level, and elevated inflammatory markers (eg. Ferritin, C-

Reactive Protein and Erythrocyte Sedimentation rate) and D-Dimer but we did not performed D-Dimer, lactate dehydrogenase, and serum ferritin level.^{6,10,11} Chest radiograph was normal in our case, most common abnormalities are consolidation, ground-glass opacities, with bilateral homogenous infiltrations mostly lower zones involvement increased over the course of illness, with a peak in severity at 10 to 12 days after symptom onset.¹²

This case has mild symptoms and managed symptomatically and careful regular monitoring done to rule out complication

and ready to address complication since there is no specific antiviral drugs till this date.¹³

CONCLUSION

This first or the index case of COVID-19 in Far western Province of Nepal had increased the possibility COVID-19 cases. The role and responsibility of individuals, different organizations, all three levels of government and different levels of health facilities has affect direly for the holistic management of COVID 19 management.

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