

Hospital course of Asymptomatic COVID-19 infection in old ages

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Background/Aims: Novel coronavirus disease 2019 (COVID-19), caused by novel coronavirus SARS-CoV-2, has spread globally since the end of 2019 as a pandemic disease. However, there is limited information about the characteristics and outcomes of the asymptomatic patients on admission in old ages. Therefore, we analyzed the hospital course of asymptomatic COVID-19 patients in old ages at National Police Hospital, South Korea.

Methods: All patients were Korean over 60-aged and diagnosed with COVID-19 by real-time reverse transcription-polymerase chain reaction(RT-PCR) for SARS-COV-2. Total 85 Patients were admitted to National Police Hospital between April 1, 2021 and April 30, 2021. Among them, 27 Patients were asymptomatic at diagnosed. Data were collected on demographic characteristics, symptoms, laboratory and radiologic findings, treatments, outcomes.

Results: In this retrospective case series of 27 asymptomatic COVID-19 patients, 7(25.9%) had remained asymptomatic and 13(48.1%) had pneumonia on radiologic finding and 3(11.1%) had pneumonia needed supplemental oxygen and anti-viral(Remdesivir), anti-inflammatory treatments(Dexamethasone).(Table 1.) Age over 70 group were more symptomatic and developed pneumonia that required supplemental Oxygen and anti-viral, inflammatory treatment than aged 60s, but there is no statistically significant except elevated HS-CRP proportion(p value< 0.05).(Table 2.) The mean duration from diagnosed to fever was 2.6days, elevated HS-CRP and pneumonia on radiologic finding were 4.1days.(Table 3.)

Conclusions: In this case series, we found that asymptomatic patients during hospital days were 25.9%, which is much lower than symptomatic patients. This finding suggests that even though asymptomatic on admission, old ages should be performed a careful investigation, follow up and vaccination. And further research about the asymptomatic or mildly symptomatic patients infected COVID-19 is essential for effective control of the pandemic spread of COVID-19.

Table 1

	All patients(n=27)
Remain asymptomatic No.	7(25.9%)
Fever No. (%)	16(59.2%)
Elevated hs-CRP No. (%)	16(59.2%)
Radiologic finding(pneumonia on CXR, LDCT) No. (%)	13(48.1%)
Demanding O2 support No. (%)	3(11.1%)
Remdesivir No. (%)	2(7.4%)
Dexamethasone No. (%)	3(11.1%)

Table 2. Comparison of COVID 19 progression between two group by age

	Age < 70	Age 70	p value	Total
No.	15	12		27
Gender No. (%)				
Female	5	4		9
Male	10	8		18
Radiologic finding(pneumonia on CXR, LDCT) No. (%)	7 (46.7%)	6 (50.0%)	0.863	13
Elevated hs-CRP No. (%)	6 (40.0%)	10 (83.3%)	0.023	16
Fever No. (%)	8 (53.3%)	8 (66.7%)	0.484	16
Remdesivir No. (%)	0 (0.0%)	2 (16.7%)	0.100	2
Dexamethasone No. (%)	1 (6.7%)	2 (16.7%)	0.411	3
Demanding O2 support No. (%)	1 (6.7%)	2 (16.7%)	0.411	3
Transferred No. (%)	0 (0.0%)	1 (8.3%)	0.255	1
Symptomatic No. (%)	10 (66.7%)	10 (83.3%)	0.326	20

Table 3. Comparison of mean days of disease progression from COVID-19 confirmation

	Age < 70	Age 70	p value	Total
Radiologic finding(pneumonia on CXR, LDCT)	3.1	5.2	0.220	4.1
Elevated hs-CRP	3.8	4.3	0.744	4.1
Fever	2.4	2.8	0.677	2.6