

INTRODUCTION

The prevalence of COVID-19 in patients with Behcet's disease (BD) is reported lower than that in the general population, and it appears not to be associated with a more severe course. (1) This was the same in a multicenter report from Iran showing the incidence of COVID-19 infection in BD patients not higher, with milder form of disease, lower morbidity and mortality rate. (2)

Aims of study

- To present clinical characteristics, disease course, management and outcomes of COVID-19 in Iranian patients with Behcet's disease
- Comparisons between patients diagnosed during 2020 and 2021

PATIENTS AND METHODS

Study setting

- Retrospective cohort study
- Duration:** March 2020 – Nov. 2021

Patient's inclusion criteria

- BD diagnosis:** Expert opinion
Criteria: ICBD: 98%; ISG: 74%
- Covid-19 diagnosis:**
Positive PCR test: 65%
Compatible clinical setting: 35%

Data collection

- BD characteristics:**
Demographic; Clinical; Laboratory
- COVID-19 infection related features:**
Clinical presentations; Outcomes; Pharmacological treatments

Comparison of two groups diagnosed between:

- March to December 2020
- January to November 2021

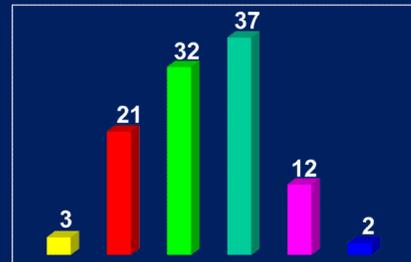
Statistical analysis

- Number (%) and CI at 95% (categorical variables)
- Mean (SD)/median (IQR) (continuous normal/non-normal distributed items)
- Comparisons: Independent t-test or Mann-Whitney U-test (the quantitative variables); Chi-square test (qualitative or categorical variables)
- Two-tailed p-value < 0.05: Significant
- Statistical analyzes by SPSS version 25 (SPSS Inc., Chicago, IL, USA)

RESULTS

- BD patients with COVID-19:**
107 (59 in 2020, 48 in 2021)

Median age: 49 (IQR:15); Range: 22-80 years



20-29 30-39 40-49 50-59 60-69 >70

Demographic features and clinical characteristics of BD patients with COVID-19 (Comparison by diagnosis date)

	Total	2020	2021	p value
F/M	58/49 (54/46)	39/20 (66/34)	19/29 (40/60)	<0.007
Age (yrs)†	48.1 (10.5)	51.4 (9.8)	44.1 (10)	<0.0003
Disease duration (m)†	243.3 (132.6)	261.5 (125.8)	220.9 (137.4)	0.12
Active/Nonactive	43/64 (40/60)	19/40 (32/68)	24/24 (50/50)	0.06
Familial history for BD	11/82 (12)	5/47 (10)	6/35 (15)	0.29
BD phenotypes				
Skin-mucosa*	31 (29)	17 (29)	14 (29)	0.97
Ocular*	65 (61)	35 (59)	30 (63)	0.74
BD criteria				
ISG*	79 (74)	43 (73)	36 (75)	0.80
ICBD*	105 (98)	58 (98)	47 (98)	0.57
Medications				
Disease modifying	66/41 (62)	37/22 (63)	29/19 (60)	0.81
Cytotoxic drugs	62/45 (58)	31/28 (53)	31/17 (65)	<0.04
Biologic drugs	1/106 (1)	0/59 (0)	1/47 (2)	NS
Corticosteroids	69/38 (64)	35/24 (59)	34/14 (71)	0.22
Comorbid diseases	44/63 (41)	29/30 (49)	15/33 (31)	0.06

Clinical features of Behcet's disease in patients with COVID-19 infection (Comparison by diagnosis date)

	Total*	2020*	2021*	P value
Oral ulcer	103 (96)	58 (98)	45 (94)	0.47
Genital ulcer	62 (58)	33 (56)	29 (60)	0.64
Skin lesions	66 (62)	35 (59)	31 (65)	0.58
Pseudofolliculitis	47 (44)	27 (46)	20 (42)	0.67
Erythema nodosum	32 (30)	15 (25)	17 (35)	0.26
Ocular lesions	70 (65)	39 (66)	31 (65)	0.87
Uveitis	67 (63)	37 (63)	30 (63)	0.98
Retinal vasculitis	49 (46)	29 (49)	20 (42)	0.44
Joint manifestations	61 (57)	35 (59)	26 (54)	0.59
Vascular involvement	14 (13)	7 (12)	7 (15)	0.48
CNS lesions	3 (3)	1 (2)	2 (4)	0.17
G.I. involvement	7 (7)	3 (5)	4 (8)	0.29
Epididymitis (males)	2/47 (4)	1/19 (5)	1/28 (4)	0.64
Positive pathergy test	46/105 (44)	24/59 (41)	22/46 (48)	0.46
Positive HLABS/B51	62/104 (60)	32/59 (54)	30/45 (67)	0.20

Clinical features of COVID-19 infection in patients with Behcet's disease (Comparison by diagnosis date)

	Total*	2020*	2021*	p value
Fever	61 (57)	32 (54)	29 (60)	0.52
Headache	70 (65)	38 (64)	32 (67)	0.81
Flu-like syndrome	90 (84)	52 (88)	38 (79)	0.32
Cold symptoms	32 (30)	13 (22)	19 (40)	<0.05
Shivering	31 (29)	20 (34)	11 (23)	0.21
Loss of taste/Anosmia	59 (55)	31 (53)	28 (58)	0.55
Cough	62 (58)	28 (47)	34 (71)	<0.02
Dyspnea/chest tightness	43 (40)	21 (36)	22 (46)	0.28
Expectoration	15 (14)	8 (14)	7 (15)	0.67
Pulmonary involvement	54 (50)	29 (49)	25 (52)	0.76
G.I. symptoms	45 (42)	22 (37)	23 (48)	0.27
Skin involvement	5 (5)	1 (2)	4 (8)	<0.04
BD exacerbation	15 (14)	8 (14)	7 (15)	0.67
No effect on BD treatment	9 (8)	3 (5)	6 (12)	0.08
Hospitalization	23 (21)	13 (22)	10 (21)	0.88
Positive PCR	69 (64)	42 (71)	27 (56)	0.07
Treatments				
Anti-viral drugs	18/90 (20)	5/49 (10)	13/41 (32)	<0.006
Anti-inflammatory drugs	13/90 (14)	9/49 (18)	4/41 (10)	0.39
Corticosteroids	21/90 (23)	6/49 (12)	15/41 (37)	<0.003

† Mean (SD) * Number (%)

CONCLUSION

The clinical feature of COVID-19 infection in Iranian BD patients was not significantly changed in the second year of pandemic. They showed higher rate of cough and cold symptoms, and were treated more with corticosteroids and antiviral drugs.