



Aim

Each week a brief report will be circulated. The aim is to share information and learning points from clinical cases with COVID-19. Please note these reports are intended for health professionals only and should not be distributed on social media.

Vasculitis COVID-19 cases

Reported

48

Died

14

How to submit cases

A new module of the UKIVAS registry for the purpose of submitting cases has been undergoing testing and will soon be ready for launch. Many thanks to volunteers from the vasculitis community for helping with testing.

A paper version of the reporting form has been disseminated allowing cases to be submitted before the module is live and so sites not yet recruiting for UKIVAS can also share information.

Please submit cases, comments or questions to the UKIVAS COVID-19 group at:
gg-uhb.vasculitis-covid@nhs.net.

Cases

We are grateful to colleagues for sharing the details of the following patients with vasculitis and C-19 infection.

Patient 39

Age / sex	75 year old Female
Vasculitis diagnosis	PR3 AAV
Disease activity	Remission
Other medical history	Hypertension, renal disease
Current treatment	Azathioprine, prednisolone 5 mg
ACEI / ARB / NSAID	ACEI
Presentation	Breathlessness, cough, fever, respiratory failure, CRP 300
Management	Steroid increased, AZA stopped
Outcome	Death



Patient 40

Age / sex	52 year old Male
Vasculitis diagnosis	GPA
Disease activity	Moderate - recent flair (rituximab and IV cyclophosphamide)
Other medical history	None
Current treatment	Above, plus hydroxychloroquine before admission
ACEI / ARB / NSAID	Nil
Presentation	Fever, malaise, cough, breathlessness
Management	Intubated and ventilated, prone
Outcome	Remains ventilated, FIO2 60-80%, recovered AKI (did not need RRT)

Patient 41

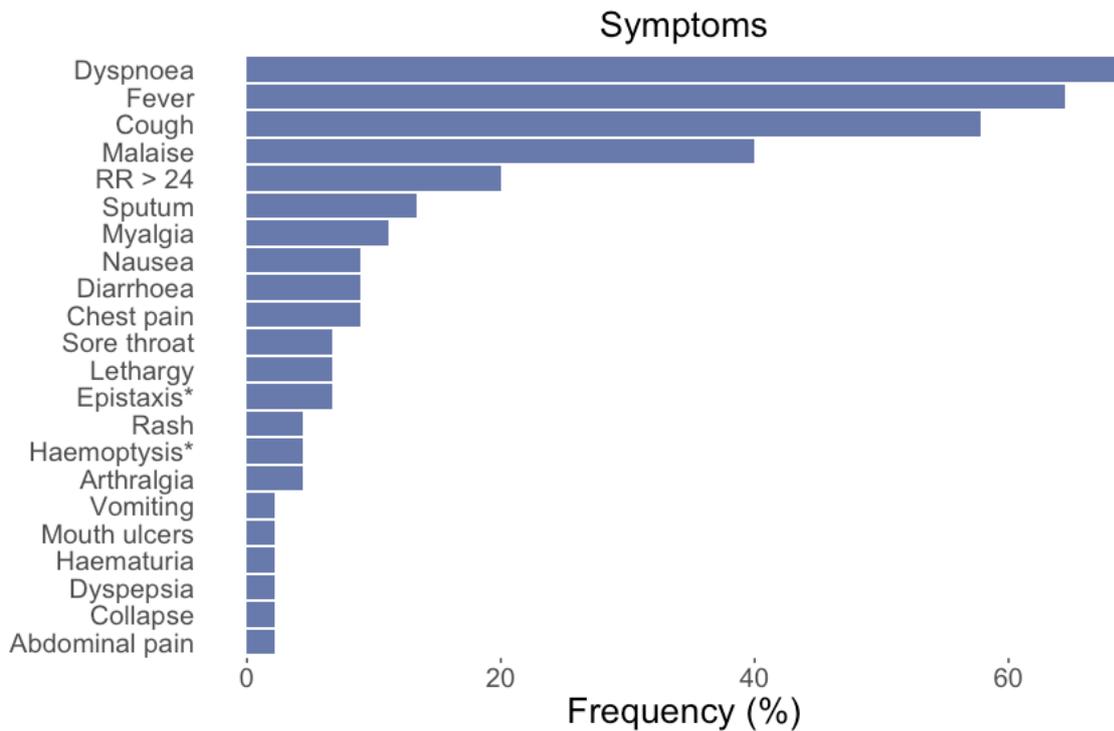
Age / sex	65 year old Male
Vasculitis diagnosis	GPA
Disease activity	Minimal
Other medical history	CKD, VTE, BMI 32
Current treatment	Rituximab maintenance, MMF, prednisolone 5 mg
ACEI / ARB / NSAID	Nil
Presentation	Fever, malaise, breathlessness, AKI
Management	Supplemental oxygen
Outcome	Uncomplicated COVID admission

Patient 42

Age / sex	Female, age unknown
Vasculitis diagnosis	GPA
Disease activity	Severe disease activity
Other medical history	CKD, hypothyroidism
Current treatment	Treatment naïve
ACEI / ARB / NSAID	Nil
Presentation	New GPA diagnosis, with symptoms since September 2019. Admitted with mild COVID illness (fever, headache, myalgia, breathlessness). AAV subsequently diagnosed (erosive ENT disease, retro-orbital lesion, cavitating lung lesions, crescentic GN on biopsy).
Management	Hospitalised, not requiring supplemental oxygen
Outcome	Awaited



Symptom frequency



For three patients we do not have information regarding symptoms. Dyspnoea was the most common presenting symptom in 31 of 38 patients (69%). Fever and cough were the next most common symptoms in 29 patients (64%) and 26 patients (58%) respectively.

* Note one individual who experienced haemoptysis and epistaxis was thought to be experiencing a possible flare of vasculitis



Clinical characteristics of vasculitis patients with COVID-19

Background			
Critical Outcome*	No n = 27	Yes n = 21	Total n = 48
Demographics			
Age, Mean (SD)	64.2 (16.8)	66.9 (13.3)	65.3 (15.3)
Female, n (%)	13 (48.1)	9 (42.9)	22 (45.8)
Ethnicity, n (%)			
Asian	4 (14.8)	0 (0)	4 (8.3)
Black	1 (3.7)	0 (0)	1 (2.1)
White	15 (55.6)	13 (61.9)	28 (58.3)
Not stated	7 (25.9)	8 (38.1)	15 (31.2)
Smoking status, n (%)			
Current	1 (3.7)	1 (4.8)	2 (4.2)
Former	4 (14.8)	3 (14.3)	7 (14.6)
Never	9 (33.3)	5 (23.8)	14 (29.2)
Unknown	13 (48.1)	12 (57.1)	25 (52.1)
Comorbidities, n (%)			
Diabetes	7 (25.9)	3 (14.3)	10 (20.8)
Hypertension	10 (37.0)	10 (47.6)	20 (41.7)
Renal Disease	14 (51.9)	9 (42.9)	23 (47.9)
CV disease	5 (18.5)	7 (33.3)	12 (25.0)
Respiratory disease	2 (7.4)	7 (33.3)	9 (18.8)
Vasculitis diagnosis, n (%)			
GPA (or PR3 AAV)	9 (33.3)	12 (57.1)	21 (43.8)
MPA (or MPO AAV)	10 (37.0)	4 (19.0)	14 (29.2)
Other	8 (29.6)	5 (23.8)	13 (27.1)
Disease activity, n (%)			
Remission	12 (44.4)	11 (52.4)	23 (47.9)
Minimal	8 (29.6)	4 (19.0)	12 (25.0)
Moderate	1 (3.7)	5 (23.8)	6 (12.5)
Severe	6 (22.2)	1 (4.8)	7 (14.6)

* Critical outcome refers to death, need for invasive or non-invasive ventilation or use of high flow oxygen device



Medication	No	Yes	Total
Critical Outcome*	n = 27	n = 21	n = 48
Current immunosuppressive therapy, n (%)			
Azathioprine	7 (25.9)	6 (28.6)	13 (27.1)
Corticosteroid (any)	14 (51.9)	17 (81.0)	31 (64.6)
Prednisolone 1-5 mg daily**	10 (40.0)	14 (66.7)	24 (52.2)
Prednisolone >5mg daily**	4 (16.0)	3 (14.3)	7 (15.2)
(Missing – Corticosteroid dose)	2 (7.4)	0 (0)	2 (4.2)
Cyclophosphamide	2 (7.4)	3 (14.3)	5 (10.4)
Hydroxychloroquine	2 (7.4)	2 (9.5)	4 (8.3)
IVIg	1 (3.7)	0 (0)	1 (2.1)
Mycophenolate	5 (18.5)	4 (19.0)	9 (18.8)
Rituximab	9 (33.3)	8 (38.1)	17 (35.4)
Other medications, n (%)			
ACEI or ARB	10 (37.0)	8 (38.1)	18 (37.5)
NSAID	0 (0)	2 (9.5)	2 (4.2)
(Missing – Other medication)	3 (11.1)	1 (4.8)	4 (8.3)

* Critical outcome refers to death, need for invasive or non-invasive ventilation or use of high flow oxygen device

** Or other steroid in prednisolone equivalents

Discussion

Prior to the COVID pandemic, it had been decided for Case 39 to defer weaning immunosuppression as she had significant CKD, PR3 positivity and had previously had no infectious complications. The treating team considered that there may have been some merit in weaning her steroid and are now adopting this approach with other patients.

Case 40 was on hydroxychloroquine in addition to recent rituximab and IV cyclophosphamide for disease flair. Despite being relatively young with no other significant medical history, he has suffered a severe disease course with COVID-19. Conversely, Case 41 had a mild disease course, despite being older and having obesity. Notably he had not recently had a disease flair requiring additional immunosuppression.

Case 42 presents a challenging decision with regards to immunosuppression timing. The treating team have opted to wait for evidence of COVID-19 resolution such as resolution of fever, negative PCR test and positive serology test.