Aim

Each week a brief report will be circulated. The aim is to share information and learning points from clinic 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	Died
38	14

How to submit cases

A new module of the UKIVAS registry for the purpose of submitting cases will soon be ready for 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 33

Age / sex	49 year old Male
Vasculitis diagnosis	GPA – initially ENT and myositis, then relapse with RPGN and grumbling scleritis
Disease activity	Minimal
Other medical history	Obesity
Current treatment	Rituximab, MMF, prednisolone 7.5 mg daily
ACEI / ARB / NSAID	Nil
Presentation	Found deceased by family member. Had cough.
Management	n/a
Outcome	Post mortem PCR confirmed SARS-CoV-2, coroner confirmed COVID-19 as cause of death

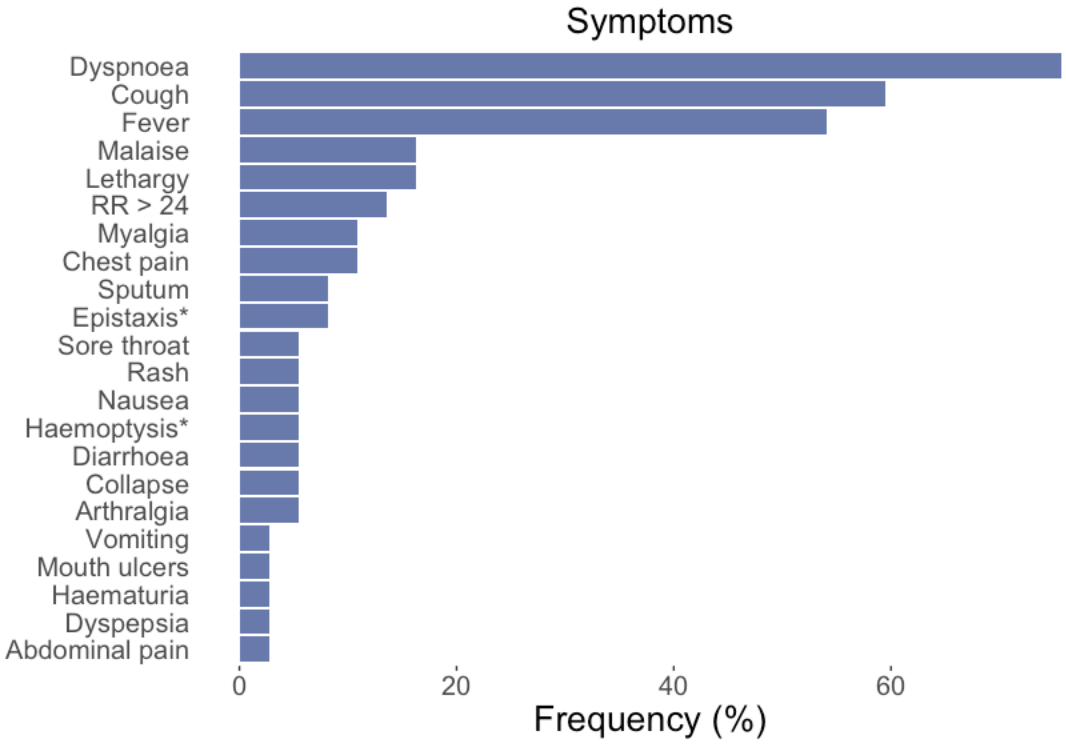
Matthew Rutherford, Maira Karabayas

Patient 34	
Age / sex	42 year old Male
Vasculitis diagnosis	Leukocytoclastic Vasculitis
Disease activity	Minimal
Other medical history	Vitiligo, blepharitis
Current treatment	7-15 mg prednisolone, hydroxychloroquine, MMF
ACEI / ARB / NSAID	NSAID
Presentation	Fever, cough, purpuric generalised rash, 1x epistaxis
Management	Advanced oxygen therapy, ABX, Hydrocortisone given due to known adrenal insufficiency, hydroxychloroquine stopped, MMF stopped and restarted
Outcome	Admission for above required

Patient 36	
Age / sex	22 year old Female
Vasculitis diagnosis	MPO vasculitis
Disease activity	Severe
Other medical history	Renal transplant 2015
Current treatment	Prednisolone 20 mg, MMF, tacrolimus, rituximab
ACEI / ARB / NSAID	Nil
Presentation	Fever, cough, myalgia, worse dyspepsia following treatment for biopsy proven recurrent crescentic GN and acute antibody mediated rejection with detectable donor-specific anti-HLA antibodies and elevated anti-MPO
Management	For rejection was treated with pulsed methylprednisolone, plasmapheresis and IVIG followed by 1g rituximab. Oral steroids increased to 20 mg daily. Approximately 24 hours after discharge developed COVID-19 symtoms – MMF stopped, plans for rituximab put on hold.
Outcome	(Some) symptoms resolving at time of last review. Creatinine falling, not yet at baseline.

Patient 37	
Age / sex	26 year old Female
Vasculitis diagnosis	GPA – flare March 2020 (predominantly ENT)
Disease activity	Moderate
Other medical history	Depression, anxiety
Current treatment	Prednisolone 60 mg, rituximab March 2020
ACEI / ARB / NSAID	Nil
Presentation	Fever, cough, sore throat, dyspnoea, chest pain, high respiratory rate, myalgia, haematuria, epistaxis, mouth ulcers
Management	Antibiotics, supplemental oxygen,
Outcome	Discharged after 5 days admission, received antibiotics, readmitted 10 days later with progressive CXR features, given further antibiotics

Symptom frequency



For one patient we do not have information regarding symptoms. Dyspnoea was the most common presenting symptom in 28 of 37 patients (76%). Cough and fever were the next most common symptoms in 22 patients (59%) and 20 patients (54%) 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

Critical Outcome*	No	Yes	Total
Total	n = 20	n = 18	n = 38
Demographics			
Age, Mean (SD)	61.5 (17.5)	66.9 (13.7)	63.9 (16.0)
Female, n (%)	11 (55.0)	8 (44.4)	19 (50.0)
Ethnicity, n (%)			
Asian	3 (15.0)	0 (0)	3 (7.9)
White	10 (50.0)	11 (61.1)	21 (55.3)
Not stated	7 (35.0)	7 (38.9)	14 (36.8)
Comorbidities, n (%)			
Diabetes	6 (30.0)	4 (22.2)	10 (26.3)
Hypertension	6 (30.0)	9 (50.0)	15 (39.5)
Renal disease	10 (50.0)	8 (44.4)	18 (47.4)
CV disease	4 (20.0)	8 (44.4)	12 (31.6)
Respiratory disease	1 (5.0)	6 (33.3)	7 (18.4)
Vasculitis diagnosis, n (%)			
GPA (or PR3 AAV)	7 (35.0)	8 (44.4)	15 (39.5)
MPA (or MPO AAV)	7 (35.0)	4 (22.2)	11 (28.9)
Other	6 (30.0)	6 (30.0)	12 (31.6)
Disease activity, n (%)			
remission	10 (50.0)	9 (50.0)	19 (50.0)
minimal	5 (25.0)	4 (22.2)	9 (23.7)
moderate	1 (5.0)	4 (22.2)	5 (13.2)
severe	4 (20.0)	1 (5.6)	5 (13.2)
Current immunosuppressive therapy, n (%)			
Azathioprine	7 (35.0)	4 (22.2)	11 (28.9)
Corticosteroid (any)	10 (50.0)	14 (77.8)	24 (63.2)
Prednisolone 1 – 5 mg daily**	7 (35.0)	12 (66.7)	19 (50.0)
Prednisolone > 5mg daily**	3 (15.0)	2 (11.1)	5 (13.2)
Cyclophosphamide	3 (15.0)	2 (11.1)	5 (13.2)
Hydroxychloroquine	2 (10.0)	1 (5.6)	3 (7.9)
IVIG	1 (5.0)	0 (0)	1 (2.6)
Mycophenolate	3 (15.0)	3 (16.7)	6 (15.8)
Rituximab	7 (35.0)	7 (38.9)	14 (36.8)
Other medications, n (%)			
NSAID	0 (0)	2 (11.1)	2 (5.3)
ACEI_ARB	7 (35.0)	7 (38.9)	14 (36.8)
(Missing – other medications)	4 (20.0)	1 (5.6)	5 (13.2)

* 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

Case 33 shows that vasculitis patients are vulnerable to potentially severe COVID-19 despite a lack of other obvious risk factors. Case 34 and 37 also demonstrate that COVID-19 can have a severe impact despite no other significant predisposing comorbidities.

Case 36 is a young person with a substantial recent immunosuppression burden which would likely have increased susceptibility to viral infection. Despite prolonged symptoms, she has done well and her transplant function is improving.

The common symptoms that vasculitis patients present with seem similar to the non-vasculitis populations with COVID-19.

Once further data accrues we aim to determine characteristics which associated with severe outcome.