



Aims

Each week a brief report will be circulated. The aim is to share information and learning points from clinic cases with COVID-19.

Vasculitis COVID-19 cases

Reported	Died
20	5

How to submit cases

A new module of the UKIVAS registry is being developed for the purposes of submitting cases. 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 initial patients with vasculitis and C-19 infection.

Patient 8

Age / sex	72 year old Male
Vasculitis diagnosis	GPA (PR3) since 2012
Disease activity	Remission
Other medical history	AF, CVA, HTN, Renal disease, VTE
Current treatment	Rituximab
ACEI / ARB / NSAID	ACE-i
Presentation	Fever, malaise, cough, dyspnoea. Acute respiratory failure and AKI. CRP 142, Creat 158
Management	Supportive care, supplemental oxygen
Outcome	Discharged

Patient 9

Age / sex	78 year old Male
Vasculitis diagnosis	GPA (PR3) since 2013
Disease activity	Remission
Other medical history	CVA, HTN, VTE, pulmonary HTN, Dementia
Current treatment	Mycophenolate Mofetil
ACEI / ARB / NSAID	ARB
Presentation	Malaise, myalgia, conjunctivitis. Mild ground glass changes on CT. CRP 139, PR3 55IU/ml
Management	Supportive care. MMF withheld, antibiotics given
Outcome	Discharged



Patient 10

Age / sex	70 year old Female
Vasculitis diagnosis	PR3-AAV since Nov 2019
Disease activity	Remission
Other medical history	Recent Shingles Feb 2020
Current treatment	Azathioprine (since 27/03) and Prednisolone 7.5mg Recent induction with x6 CYC
ACEI / ARB / NSAID	Unclear
Presentation	Clinic attendance- with cough, dyspnoea, lack of appetite, nausea. SpO2 95% OA, CXR clear. AZA withheld. Two days later admitted with SpO2 88% on 2L
Management	High flow oxygen given and antibiotic cover for CAP
Outcome	Improving – remains IP

Patient 11

Age / sex	53 year old Female
Vasculitis diagnosis	MPA since Sept 2019
Disease activity	Remission
Other medical history	Nil
Current treatment	Azathioprine 150mg and Prednisolone 5mg Previous RTX induction
ACEI / ARB / NSAID	Unclear
Presentation	Dyspnoea. CRP 170, CXR multi-focal consolidation.
Management	Supplemental oxygen and antibiotics given for secondary pneumonia
Outcome	Improving – remains IP

Patient 12

Age / sex	54 year old Male
Vasculitis diagnosis	PR3-AAV since Dec 2019
Disease activity	Active
Other medical history	Inpatient since Dec 2019 with new AAV. X2 CYC – developed spontaneous colic artery rupture and GI bleed, perforated gastric ulcer- intra abdominal collections. Severe LVSD (no CAD)
Current treatment	IVIg
ACEI / ARB / NSAID	Unclear
Presentation	Whilst IP for above developed C-19
Management	Supportive, ward based care (no significant oxygen requirement)
Outcome	Remains IP

Patient 13

Age / sex	82 year old Male
Vasculitis diagnosis	PR3-AAV since Feb 2020
Disease activity	Active
Other medical history	CVA, IHD, T2DM
Current treatment	Recent Induction with CYC x3
ACEI / ARB / NSAID	Unclear
Presentation	Cough, dyspnoea
Management	Supportive, ward based care
Outcome	Remains IP



Patient 14

Age / sex	76 year old Male
Vasculitis diagnosis	PR3-AAV since 2015
Disease activity	Remission
Other medical history	CVA, IHD, DM, renal disease
Current treatment	Azathioprine and Prednisolone 5mg
ACEI / ARB / NSAID	Nil
Presentation	Malaise, cough, dyspnoea. Developed secondary bacterial infection with sepsis, severe anaemia and AKI. CRP 116, Creat 562, PR3 7.7. Imaging showing pleural effusion and consolidation.
Management	Supportive care. Azathioprine withheld. Antibiotics given, dialysis
Outcome	Cardiac arrest- deceased

Patient 15

Age / sex	47 year old Male
Vasculitis diagnosis	EGPA (MPO positive) since 2018
Disease activity	Remission
Other medical history	Diabetes, renal disease
Current treatment	Rituximab
ACEI / ARB / NSAID	ACE-i
Presentation	Fever (41°C), malaise, sore throat, cough, dyspnoea Acute respiratory failure, secondary infection (consolidation on CXR) and sepsis (no pathogen isolated), hyperglycaemia. CRP 109
Management	Supportive care, supplemental oxygen and antibiotics
Outcome	Remains IP

Patient 16

Age / sex	76 year old Male
Vasculitis diagnosis	GPA (PR3) since 2001
Disease activity	Remission
Other medical history	HTN, renal disease, VTE
Current treatment	Mycophenolate Mofetil
ACEI / ARB / NSAID	ARB
Presentation	Fever, malaise, cough, dyspnoea. Acute respiratory failure, AKI. CRP 114, Creat 321
Management	Supportive care, supplemental oxygen, MMF withheld
Outcome	Remains IP

Patient 17

Age / sex	78 year old Female
Vasculitis diagnosis	PAN since 2011
Disease activity	Remission
Other medical history	Renal disease
Current treatment	Azathioprine
ACEI / ARB / NSAID	Nil
Presentation	Malaise, nausea, diarrhoea. Inflammatory changes on chest imaging
Management	Supplemental oxygen, antibiotics given. Azathioprine withheld
Outcome	Recovered and discharged



Patient 18

Age / sex	78 year old male
Vasculitis diagnosis	MPO-AAV & Anti-GBM since Oct 2019
Disease activity	Minimal/low
Other medical history	DM, renal disease, ILD (silicosis), IHD- MI, gout, mental health issues
Current treatment	Prednisolone 15mg Dialysis dependent from presentation. CYC induction complicated by HAP. CYC stopped and weaning steroids
ACEI / ARB / NSAID	Nil
Presentation	Inpatient for 1x for GI bleed. Developed fever, productive cough, dyspnoea (RR>24). Bilateral consolidation and effusions on imaging. Strep bacteraemia. Found C-19 positive
Management	Supportive care. Supplemental oxygen. Prednisolone reduced to 10mg. Antibiotics given
Outcome	Recovered and discharged

Patient 19

Age / sex	72 year old Male
Vasculitis diagnosis	PR3-AAV since Feb 2020
Disease activity	Moderate
Other medical history	Gout
Current treatment	Oral CYC and Prednisolone 40mg
ACEI / ARB / NSAID	Nil
Presentation	Presented with dyspnoea (RR >24). Confirmed PE and new AF. Whilst IP found to have C-19 pneumonitis. Imaging embolism, nodules and consolidation. Create 479
Management	Supportive care. High flow oxygen. Prednisolone reduced and CYC stopped. Antibiotics given
Outcome	Frailty and rapid deterioration despite - end of life care- deceased

Patient 20

Age / sex	62 year old Male
Vasculitis diagnosis	PR3-AAV since March 2020
Disease activity	Severe/ high
Other medical history	HTN, renal disease, UC
Current treatment	IV x1CYC Prednisolone 30mg
ACEI / ARB / NSAID	Nil
Presentation	New presentation- received 1x CYC with Pred. A week later developed cough, dyspnoea (RR >24), haemoptysis. Rapid deterioration. Acute respiratory failure, AKI, metabolic acidosis, severe anaemia. Admission to ICU, on invasive mechanical ventilation
Management	Supportive care, antibiotics given. Vasopressor support. Prednisolone reduced, CYC stopped. Randomised in RECOVERY trial
Outcome	Showing signs of recovery and possible wean off ventilator



Clinical characteristics of patients with confirmed COVID-19

	Critical outcome* n=6	Non-critical* outcome n=14	Total n=20
Age (years) (mean ± SD)	69.3 ± 9.8	67.1 ± 13.5	67.5 ± 12.3
Female, n (%)	2 (33.3)	5 (35.7)	7 (35)
Comorbidities, n (%)			
Hypertension	2 (33.3)	5 (35.7)	7 (35)
Diabetes	1 (16.7)	6 (42.3)	7 (35)
Cardiovascular disease	3 (50)	6 (42.3)	9 (45)
Renal disease	4 (66.7)	6 (42.3)	10 (50)
Lung disease	1 (16.7)	1 (7.1)	2 (10)
Vasculitis diagnosis, n (%)			
MPA (or MPO- AAV)	2 (33.3)	2 (14.3)	4 (20)
GPA (or PR3-AAV)	4 (66.7)	8 (57.1)	12 (60)
EGPA	0 (0)	1 (7.1)	1 (5)
Undifferentiated AAV	0 (0)	1 (7.1)	1 (5)
Dual positive (Anti-GBM and MPO)	0 (0)	1 (7.1)	1 (5)
PAN	0 (0)	1 (7.1)	1 (5)
Disease Activity, n (%)			
Remission	4 (66.7)	8 (57.1)	12 (60)
Minimal / Low	0 (0)	3 (21.4)	3 (15)
Moderate	1 (16.7)	0 (0)	1 (5)
Severe/ High	1 (16.7)	3 (21.4)	4 (20)
Vasculitis current therapy, n (%)			
Recent Cyclophosphamide**	2 (33.3)	2 (14.3)	4 (20)
Rituximab	1 (16.7)	3 (21.4)	4 (20)



Azathioprine	2 (33.3)	6 (42.3)	8 (40)
Mycophenolate	0 (0)	2 (14.3)	2 (10)
Hydroxychloroquine	0 (0)	1 (7.1)	1 (5)
Prednisolone	4 (66.7)	6 (42.9)	10 (50)
IVIG	0 (0)	1 (7.1)	1 (5)
NSAID, n (%)	0 (0)	0 (0)	0 (0)
ACEi/ARB, n (%)	1 (16.7)	7 (70)	8 (50)

Note: *Critical outcome refers to ICU admission or death. Non-critical outcome refers to ward based care or recovery/discharge. ** Recent Cyclophosphamide therapy, given within 6 weeks of C-19 presentation