

Supplemental Table 1: Laboratory Investigations

Author name	Hb	TC	PC	Fragmented RBCs	LDH	Haptoglobin	Sr creatinine	Blood Urea	Urine RBCs	Urine WBCs	Proteinuria (g)
Manabe <i>et al</i> /2017 ⁶	4.5	8700	45000	Yes	555	12 (Low)	38.77	689.4	Present	No	13.5
Sathe <i>et al</i> /2016 ⁷	4.9	16300	6200	Yes	930	ND	5.2	ND	Present	Yes	2+
Duong <i>et al</i> /2020 ⁸	14.5	ND	18000	Yes	1627	<20 (Low)	8.35	ND	Present	No	Present
Badiola <i>et al</i> /2018 ⁹	8.5	28450	59000	Yes (8%)	739	<30mg/dl (Low)	1.4	ND	Present	No	2.4
Fukui <i>et al</i> /2015 ¹⁰	7.5	16900	16000	Yes	ND	< 5mg/dl (Low)	0.8	ND	Present	No	0.74
Watanabe <i>et al</i> /2010 ¹¹	7.4	8500	20000	Yes	ND	Low	6.02	80	Present	No	Present
Agrawal <i>et al</i> /2011 ¹²	3.8	ND	7000	Yes	1217	Low	2.3	ND	Present	No	2.8
Asamiya <i>et al</i> /2002 ¹³	8.9	11750	50000	Yes	430	Undetectable	4.3	114	Present	Yes	2+
Stefanidis <i>et al</i> /1998 ¹⁴	8.4	23900	63000	Yes (10-15%)	1043	<0.1 (Low)	9.19	140.02	Present	Yes	6
Nagai <i>et al</i> /2008 ¹⁵	12	15690	32000	Yes	539	<6.4 (Low)	3.95	39	Present	No	2+
Yamazaki <i>et al</i> / 2007 ¹⁶	7.8	23070	21000	Yes	770	<10 (Low)	7.62	57.6	Present	Yes	2+
Yamauchi <i>et al</i> /2010 ¹⁷	6.4	19300	61000	Yes	680	Low	2.82	41.98	Present	No	0.8
Lim <i>et al</i> /1998 ¹⁸	6	13600	28000	Yes	902	< 5.8 mg/dl (Low)	6.2	ND	Present	No	>300mg/dl
Shukla <i>et al.</i> /2022 ¹⁹	5.4	10000	39000	Yes (4-5%)	680	< 5.8mg/dl (Low)	6.16	150	Present	Yes	0.65
Kitamura <i>et al.</i> /2022 ²⁰	8.6	9700	45000	Yes	2152	Undetectable	2.7	113	Present	Yes	1.6

Author name	AST	ALT	C3	C4	ANCA	Anti-CFH	Genetic factor	ADAMTS activity	Chest X Ray	Chest CT findings	Abdomen CT
Manabe <i>et al</i> /2017 ⁶	14	11	78.1	29.5	PR3	ND	ND	37% (Low)	Right lung infiltrates without nodular lesions	Diffuse alveolar opacities suggestive of haemorrhage	ND
Sathe <i>et al</i> /2016 ⁷	ND	ND	52	20.2	P-ANCA	1500	ND	ND	ND	ND	ND
Duong <i>et al</i> /2020 ⁸	ND	ND	121	27	MPO	ND	ND	62% (Normal)	ND	Multifocal consolidation	ND
Badiola <i>et al</i> /2018 ⁹	ND	ND	148	37	MPO	ND	CFHR5 Exon Heterozygous Variant	73% (Normal)	Bilateral lung infiltrates	Bilateral GGOs	ND
Fukui <i>et al</i> /2015 ¹⁰	ND	ND	40	6.3	MPO	ND	ND	49.8% (Low)	ND	Peripheral GGOs with pleural effusion	ND
Watanabe <i>et al</i> /2010 ¹¹	ND	ND	ND	ND	MPO	ND	ND	35% (Low)	ND	Mild interstitial pneumonia in both lower lung fields	ND
Agrawal <i>et al</i> /2011 ¹²	ND	ND	115	28	MPO	ND	ND	<5% (Low)	ND	ND	ND
Asamiya <i>et al</i> /2002 ¹³	27	ND	104	27	MPO	ND	ND	37.8% (Low)	Diffuse alveolar pattern and bilateral nodules	Diffuse thickening of gastroduodenal wall	Diffuse thickening of gastroduodenal wall
Stefanidis <i>et al</i> /1998 ¹⁴	ND	ND	ND	ND	PR3	ND	ND	ND	Left pleural effusion	ND	ND

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Supplemental Table 1: Contd...

Author name	AST	ALT	C3	C4	ANCA	Anti-CFH	Genetic factor	ADAMTS activity	Chest X Ray	Chest CT findings	Abdomen CT
Nagai <i>et al</i> /2008 ¹⁵	45	11	ND	ND	MPO	ND	ND	27% (Low)	Bilateral pleural effusion	Bilateral pleural effusion	ND
Yamazaki <i>et al</i> /2007 ¹⁶	12	9	96	23.9	PR3	ND	ND	ND	Nodule in right lower and middle	1 cm nodule right lower and 2cm nodule in right middle lobe	Bleeding from pancreaticoduodenal artery
Yamauchi <i>et al</i> /2010 ¹⁷	ND	ND	ND	ND	MPO	ND	ND	41% (Low)	ND	Bilateral pleural effusion and GGO	ND
Lim <i>et al</i> /1998 ¹⁸	ND	ND	Normal	Normal	C-ANCA	ND	ND	ND	Air-space consolidation in right lung	Nonsegmental ground glass opacity with air- bronchogram in the right lung field	ND
Shukla <i>et al</i> /2022 ¹⁹	250	150	89.1	5.2	PR3	Negative	Duplication of CFHR3 (exons 1,2,3,6 and intron 4) and CFHR1(intron 3 and exon 5,6)	ND	Diffuse alveolar pattern	Diffuse alveolar haemorrhage with bilateral nodules	Bilateral globular kidney and perinephric stranding
Kitamura <i>et al</i> /2022 ²⁰	ND	ND	73	21.6	MPO	ND	Not detected	39%	ND	ND	ND

Hb-Hemoglobin, TLC-Total leukocyte count, PC-Platelet count, LDH-Lactate dehydrogenase, RBCs-Red blood cells, WBCs,-White blood cells, AST-Aspartate aminotransferase, ALT-Alanine aminotransferase, C3-Complement factor 3, C4-Complement factor 4, ANCA-Antineutrophil cytoplasmic antibody, PR3-Proteinase 3, MPO-Myeloperoxidase, ND-Not described, Anti CFH-Anticomplement factor H antibody, GGO-Ground glass opacities, ADAMTS- A disintegrin and metalloproteinase with a thrombospondin type 1 motif, member

Supplemental Table 2: Histological features on kidney biopsy

Author name	Number of glomeruli	Globally sclerosed	Cellular/ Fibro cellular crescents	Fibrous crescents	Endocapillary proliferation	Tuft necrosis	Rupture of Bowman capsule	Periglomerular granulosas	Mesangial expansion	Mesangial proliferation
Manabe <i>et al</i> /2017 ⁶	22	6	Present (16)	No	No	Present (Few)	Present	No	No	No
Sathe <i>et al</i> /2016 ⁷	NK	NK	Present (1)	No	No	No	No	No	Present	Present (mild)
Duong <i>et al</i> /2020 ⁸	23	6	Present (1)	No	No	No	No	No	No	No
Badiola <i>et al</i> /2018 ⁹	12	NK	No	No	No	No	No	No	No	No
Fukui <i>et al</i> /2015 ¹⁰					No renal biopsy					
Watanabe <i>et al</i> /2010 ¹¹	13	0	No	Present (13)	No	No	No	No	No	No
Agrawal <i>et al</i> /2011 ¹²	19	0	Present (4)	No	No	Present (2)	No	No	No	Present (all)
Asamiya <i>et al</i> /2002 ¹³					No renal biopsy					
Stefanidis <i>et al</i> /1998 ¹⁴	5	0	Present (5)	No	No	Present (focal)	No	No	No	No
Nagai <i>et al</i> /2008 ¹⁵					No renal biopsy					
Yamazaki <i>et al</i> /2007 ¹⁶	11	3	Present (8)	No	No	No	Present	Present	No	No
Yamauchi <i>et al</i> /2010 ¹⁷	10	1	Present (2)	No	No	No	No	No	Present	Present (Mild)
Lim <i>et al</i> /1998 ¹⁸					No renal biopsy					
Shukla <i>et al</i> /2022 ¹⁹	36	4	Present (4)	Present (4)	No	No	No	No	Present	No
Kitamura <i>et al</i> /2022 ²⁰	NK	NK	Present	No	No	Yes	Yes	No	No	No

NK-Not known

Supplemental Table 3: Histological features on kidney biopsy								
Author name	Ischemic changes in underlying tuft	Fresh fibrin in glomerulus	Thickening and double contouring of basement membrane	Arterioles Tubular atrophy and interstitial fibrosis	Arteries	Direct immunofluorescence	Electron Microscopy	
Manabe <i>et al/2017</i> ⁶	Present	No	No	Mild	NK	Acute TMA-Fibrinoid occlusion with inflammation in the arterial wall	Linear deposits for IgG along glomerular capillary wall	No electron dense deposits
Sathe <i>et al/2016</i> ⁷	No	No	No	NK	NK	No specific changes	NK	Not done
Duong <i>et al/2020</i> ⁸	No	Present	No	Mild	Mild	No specific changes	Negative for all immunoglobulins and complements	No electron dense deposits
Badiola <i>et al/2018</i> ⁹	No	No	No	Mild	Mild	Acute TMA-Fibrinoid occlusion with no inflammation in the arterial wall	Sparse deposits of IgA, C3 and C4d in the glomerular capillary wall and arterioles. Negative for IgG, IgM, C1q	Not done
Fukui <i>et al/2015</i> ¹⁰						No renal biopsy		
Watanabe <i>et al/2010</i> ¹¹	Present	No	Present	Mild	Moderate	No specific changes	IgG 1+, IgM 1+, C3 1+, kappa 1+, lambda 1+ in the glomerular capillary wall and mesangium	Not done
Agrawal <i>et al/2011</i> ¹²	No	No	No	Mild	Mild	Acute TMA-Fibrinoid occlusion with no inflammation in the arterial wall	IgG 2+, IgA 1+, C3 1+, kappa 1+, lambda 1+ in the mesangium and glomerular capillary wall. IgM and C1q- negative.	Sparse small electron dense deposits seen in the subepithelial and paramesangial location.
Asamiya <i>et al/2002</i> ¹³						No renal biopsy		
Stefanidis <i>et al/1998</i> ¹⁴	Present	No	Present	NK	NK	Subacute TMA-Marked subendothelial edema and fragmented RBCS and leukocytes in the arterial wall	IgM and fibrinogen positivity noted in the tuft necrosis	Thickening and wrinkling of glomerular capillary wall with reduplication of basement membrane
Nagai <i>et al/2008</i> ¹⁵						No renal biopsy		
Yamazaki <i>et al/ 2007</i> ¹⁶	No	No	No	NK	Moderate	No specific changes	NK	Not done

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Supplemental Table 3: Contd...

Author name	Ischemic changes in underlying tuft	Fresh fibrin in glomerulus	Thickening and double contouring of basement membrane	Acute tubular injury	Tubular atrophy and interstitial fibrosis	Arteries	Direct immunofluorescence	Electron Microscopy
Yamauchi <i>et al</i> /2010 ¹⁷	No	No	No	NK	NK	Necrotising arteritis		
Lim <i>et al</i> /1998 ¹⁸					No renal biopsy			
Shukla <i>et al</i> /2022 ¹⁹	Present	No	Present	Severe	Mild	Necrotising arteritis with granulomas	Negative for all immunoglobulins and complements	Not done
Kitamura <i>et al</i> /2022 ²⁰	No	No	No	NK	NK	Necrotising arteritis	Negative for all immunoglobulins and complements	Not done

NK-Not known, Ig- immunoglobulins, C-complement

Supplemental Table 4: Treatment and outcome details									
Author name	Pulse steroids	Oral steroids	IV Cyclophosphamide	Oral Cyclophosphamide	Rituximab	Methotrexate	Others	Plasma Exchange	Outcome
Manabe <i>et al</i> /2017 ⁶	Yes	Yes	Yes	No	No	No	No	Yes	Renal failure did not improve. Haematological parameters and diffuse alveolar haemorrhage resolved
Sathe <i>et al</i> /2016 ⁷	Yes	Yes	Yes	No	Yes	No	Azathioprine	Yes	Renal and haematological recovery achieved
Duong <i>et al</i> /2020 ⁸	Yes	Yes	No	No	Yes	No	No	Yes	Renal and haematological recovery occurred, however patient expired later due to bowel perforation
Badiola <i>et al</i> /2018 ⁹	Yes	Yes	Yes	No	No	No	No	Yes	Both haematological and renal recovery occurred
Fukui <i>et al</i> /2015 ¹⁰	Yes	Yes	No	No	No	No	No	Yes	Haematological recovery achieved; patient never had renal failure
Watanbe <i>et al</i> /2010 ¹¹	Yes	Yes	No	No	No	No	No	Yes	Renal and haematological recovery did not occur; patient died of gut perforation which was attributed to CMV due to CMV antigenemia
Agrawal <i>et al</i> /2011 ¹²	Yes	Yes	No	Yes	No	No	No	Yes	Haematological remission after 6 plasma exchanges and partial remission at 4 months
Asamiya <i>et al</i> /2002 ¹³	Yes	Yes	Yes	No	Yes	No	No	Yes	Haematological remission after Rituximab, dialysis dependant
Stefanidis <i>et al</i> /1998 ¹⁴	No	Yes	No	Yes	No	No	No	Yes	Haematological remission after 15 days and 6 plasma exchanges
Nagai <i>et al</i> /2008 ¹⁵	Yes	Yes	No	No	No	No	No	Yes	Haematological remission after 8 weeks and dialysis stopped at 67 th day
Yamazaki <i>et al</i> /2007 ¹⁶	Yes	Yes	No	No	No	No	No	Yes	Haematological remission after plasma exchange, renal recovery did not occur
Yamauchi <i>et al</i> /2010 ¹⁷	Yes	Yes	No	No	No	No	No	Yes	Haematological remission after plex, renal recovery and dialysis independent
Lim <i>et al</i> /1998 ¹⁸	Yes	Yes	No	Yes	No	No	No	Yes	Haematological and renal recovery occurred
Shukla <i>et al</i> /2022 ¹⁹	Yes	Yes	No	No	No	No	No	Yes	Haematological and renal recovery did not occur; patient expired of intracranial haemorrhage
Kitamura <i>et al</i> /2022 ²⁰	Yes	Yes	No	No	Yes	No	Ecilizumab	Yes	Haematological and renal recovery occurred after ecilizumab therapy

IV- intravenous

Supplementary Figure 1

