**Suppl. Table 1. Clinical and pathological characteristics of each patient with renal thrombotic microangiopathy at the time of biopsy and follow-up (n=63)**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No. | Etiology | Sex | Age,yrs | AKI | PLT, 109/L | Hb, g/L | LDH, IU/L | Proteinuria, g/d | Scr, mg/dL | Renal TMA diagnosis criteriaa | FPW, nm | Therapy | Treatment response | Outcome | Follow-up, m |
| P1 | aHUS | M | 22 | Yes | 294 | 62 | 445 | 0.8 | 4.9 | 2,3,4,5 | 1109 | dialysis | NR | ESRD | 3 |
| P2 | aHUS | F | 33 | Yes | 145 | 65 | 266 | 1.8 | 2.7 | 2,4 | 1372 | GC, RASi | CR |  | 96 |
| P3 | aHUS | F | 45 | Yes | 49 | 55 | 3291 | 2.6 | 4.0 | 1,2,3,4,5 | 715 | GC, dialysis | CR |  | 65 |
| P4 | aHUS | F | 66 | Yes | 35 | 78 | 247 | 2.4 | 1.4 | 4,5 | 754 | RASi | CR |  | 98 |
| P5 | aHUS | M | 45 | Yes | 33 | 59 | 1360 | 4.3 | 9.2 | 1,2,3,4,5 | 1152 | GC, PE, PI, dialysis | NR | ESRD | 63 |
| P6 | aHUS | M | 71 | Yes | 127 | 50 | 249 | - | 8.6 | 3,4,5 | 1013 | GC, CTX, PE, PI, dialysis | NR | ESRD, death | 27 |
| P7 | aHUS | M | 40 | Yes | 86 | 65 | 551 | 3.0 | 5.8 | 1,3,4,5 | 730 | GC, CTX, PE, PI, dialysis | NR | ESRD | 59 |
| P8 | aHUS | M | 28 | Yes | 77 | 65 | 1150 | 4.9 | 2.4 | 2,4,5 | 1567 | GC, CTX, PE | NR | ESRD | 11 |
| P9 | aHUS | M | 41 | No | 121 | 151 | 346 | 4.1 | 1.7 | 3,4,5 | 1351 | CTX, GC, dialysis | NR | ESRD | 19 |
| P10 | aHUS | M | 18 | No | 180 | 157 | 178 | 4.9 | 1.8 | 3,4,5 | 1193 | RASi | NR |  | 37 |
| P11 | aHUS | F | 15 | Yes | 15 | 59 | 2888 | 0.8 | 3.2 | 3,4 | 715 | GC, CTX, MMF, PE, PI, dialysis | NR | ESRD | 55 |
| P12 | TTP | M | 23 | No | 21 | 93 | 266 | 3.3 | 3.3 | 2,3,4 | 677 | GC, CTX, PI | PR |  | 9 |
| P13 | Pregnancy | F | 26 | Yes | 57 | 70 | 366 | - | 6.5 | 3,4,5 | 841 | GC, PE, PI, dialysis | CR |  | 108 |
| P14 | Pregnancy | F | 25 | No | 167 | 131 | - | 4.3 | 1.0 | 4 | 664 | RASi | NR |  | 104 |
| P15 | Pregnancy | F | 35 | Yes | 46 | 71 | 2143 | 2.1 | 3.6 | 5 | 866 | GC, PE, PI | CR |  | 80 |
| P16 | Pregnancy | F | 37 | No | 257 | 128 | - | 0.8 | 0.5 | 5 | 609 | RASi | CR |  | 79 |
| P17 | Pregnancy | F | 33 | Yes | 30 | 52 | 2948 | 0.8 | 2.1 | 4 | 739 | GC, PE, PI, dialysis | CR |  | 84 |
| P18 | Pregnancy | F | 31 | No | 132 | 102 | 391 | 2.0 | 0.7 | 3,4,5 | 741 | RASi | NR | ESRD, death | 56 |
| P19 | Pregnancy | F | 36 | Yes | 96 | 56 | 367 | 6.9 | 4.9 | 1,4,5 | 2369 | GC, PE, PI, dialysis | NR | ESRD | 3 |
| P20 | Pregnancy | F | 26 | Yes | 43 | 68 | 3644 | 1.9 | 1.2 | 3,5 | 701 | PE, PI, dialysis | CR |  | 31 |
| P21 | Pregnancy | F | 28 | Yes | 21 | 63 | 2456 | 14.3 | 1.5 | 4 | 1331 | PE, PI, dialysis | CR |  | 13 |
| P22 | MHPT | M | 34 | No | 181 | 137 | - | 0.9 | 1.7 | 3,4 | 572 | RASi | CR |  | 36 |
| P23 | MHPT | M | 36 | Yes | 130 | 102 | - | 1.2 | 8.2 | 3,4,5 | 1109 | RASi,dialysis | NR | ESRD | 3 |
| P24 | MHPT | M | 30 | No | 121 | 145 | - | 2.8 | 1.0 | 4,5 | 980 | RASi | NR |  | 180 |
| P25 | MHPT | M | 28 | Yes | 85 | 93 | 260 | 1.0 | 5.0 | 1,3,4,5 | 1023 | RASi, dialysis | PR | ESRD | 180 |
| P26 | MHPT | M | 38 | Yes | 85 | 56 | 160 | 2.7 | 5.2 | 3,4,5 | 939 | dialysis | NR | ESRD | 207 |
| P27 | MHPT | M | 27 | Yes | 286 | 85 | 139 | 1.4 | 5.7 | 3,4,5 | 839 | RASi, dialysis | NR | ESRD | 201 |
| P28 | MHPT | M | 34 | Yes | 397 | 140 | - | 1.6 | 1.8 | 3,4 | 698 | other AHD | PR |  | 3 |
| P29 | MHPT | F | 40 | Yes | 148 | 74 | - | 0.8 | 4.2 | 3,4,5 | 1028 | other AHD | NR | ESRD | 3 |
| P30 | MHPT | M | 33 | Yes | 177 | 65 | - | 0.6 | 6.8 | 3,4,5 | 1143 | dialysis | NR | ESRD | 4 |
| P31 | MHPT | M | 24 | Yes | 198 | 79 | - | 2.8 | 10.6 | 3,4,5 | 1413 | RASi, dialysis | NR | ESRD | 3 |
| P32 | MHPT | M | 34 | Yes | 343 | 105 | - | 3.6 | 5.6 | 3,4,5 | 1064 | RASi, dialysis | NR | ESRD | 47 |
| P33 | MHPT | F | 32 | Yes | 129 | 36 | 600 | 1.2 | 7.4 | 1,3,4 | 1584 | RASi, dialysis | NR | ESRD, death | 3 |
| P34 | MHPT | M | 33 | No | 209 | 133 | - | 1.1 | 3.1 | 3,4,5 | 1031 | dialysis | NR | ESRD | 50 |
| P35 | MHPT | F | 40 | Yes | 139 | 76 | - | 3.6 | 4.8 | 3,4,5 | 1027 | RASi | NR | ESRD | 3 |
| P36 | MHPT | M | 28 | Yes | 326 | 121 | - | 3.4 | 3.5 | 3,4 | 1165 | other AHD | CR |  | 6 |
| P37 | MHPT | F | 23 | Yes | 240 | 106 | 209 | 1.3 | 7.9 | 3,4,5 | 697 | GC, RASi, dialysis | NR | ESRD | 10 |
| P38 | MHPT | M | 38 | Yes | 260 | 133 | 238 | 7.7 | 7.6 | 3,4,5 | 1540 | GC, PI, dialysis | NR | ESRD | 146 |
| P39 | MHPT | M | 25 | Yes | 184 | 65 | 186 | 1.1 | 6.4 | 3,4 | 871 | dialysis | CR | ESRD | 3 |
| P40 | MHPT | M | 29 | No | 334 | 160 | - | 2.2 | 1.0 | 3,4 | 926 | RASi, dialysis | NR | ESRD | 105 |
| P41 | MHPT | M | 33 | Yes | 170 | 106 | 149 | 0.9 | 6.5 | 3,4,5 | 1213 | RASi | CR | ESRD | 91 |
| P42 | MHPT | M | 35 | Yes | 206 | 106 | - | 0.9 | 1.3 | 3,4 | 641 | RASi | PR |  | 77 |
| P43 | MHPT | M | 45 | Yes | 211 | 87 | 160 | 4.5 | 5.8 | 3,4 | 968 | other AHD | PR | ESRD | 3 |
| P44 | MHPT | M | 34 | Yes | 150 | 79 | 220 | 0.5 | 4.4 | 3,4 | 946 | RASi, dialysis | NR | ESRD | 13 |
| P45 | MHPT | M | 29 | Yes | 171 | 109 | 375 | 2.6 | 2.9 | 3,4,5 | 894 | RASi, dialysis | NR | ESRD | 75 |
| P46 | MHPT | M | 33 | No | 322 | 134 | - | 3.4 | 1.5 | 3,4,5 | 745 | RASi | PR |  | 36 |
| P47 | MHPT | M | 24 | No | 246 | 138 | - | 3.4 | 2.0 | 3,4 | 659 | RASi | PR |  | 67 |
| P48 | MHPT | M | 31 | No | 183 | 170 | - | 5.0 | 1.5 | 3,4,5 | 4748 | RASi, dialysis | NR | ESRD | 61 |
| P49 | MHPT | M | 46 | No | 291 | 129 | 297 | 2.0 | 3.1 | 3,5 | 735 | RASi | PR |  | 48 |
| P50 | MHPT | M | 28 | No | 195 | 159 | 145 | 3.9 | 1.3 | 3,4 | 1136 | RASi | PR |  | 40 |
| P51 | MHPT | M | 29 | Yes | 69 | 90 | 372 | 1.3 | 7.8 | 1,3,4,5 | 2349 | RASi, dialysis | CR |  | 40 |
| P52 | MHPT | M | 33 | No | 349 | 118 | 148 | 0.3 | 2.4 | 3,4,5 | 1046 | RASi | CR |  | 24 |
| P53 | CD | M | 51 | Yes | 16 | 121 | 333 | 6.4 | 0.9 | 2,3,4,5 | 1049 | GC, vincristine | NR | Death | 72 |
| P54 | CD | F | 36 | No | 377 | 104 | 121 | 0.9 | 1.0 | 5 | 706 | GC, RASi | CR |  | 90 |
| P55 | CD | M | 56 | No | 153 | 106 | - | 0.9 | 1.1 | 4,5 | 806 | COP | NR |  | 33 |
| P56 | CD | F | 56 | Yes | 368 | 115 | 135 | 0.4 | 2.3 | 4,5 | 971 | COP | CR |  | 51 |
| P57 | CD | F | 60 | Yes | 244 | 112 | 86 | 0.3 | 1.9 | 5 | 736 | R+VP, RASi, dialysis | NR | ESRD, death | 9 |
| P58 | CD | F | 61 | No | 307 | 127 | 151 | 0.1 | 2.5 | 5 | 895 | MP, PE, PI | CR |  | 15 |
| P59 | HSCT | M | 52 | Yes | 259 | 119 | - | 4.9 | 2.1 | 5 | 851 | GC | PR |  | 41 |
| P60 | HSCT | M | 29 | No | 62 | 63 | - | 0.6 | 1.7 | 3,4,5 | 793 | GC, Tac, RASi | NR | Death | 15 |
| P61 | HSCT | M | 25 | No | 123 | 78 | 134 | 0.2 | 1.9 | 4,5 | 3034 | GC, Tac, MMF, RASi | NR |  | 6 |
| P62 | HSCT | F | 35 | No | 15 | 67 | 629 | 0.4 | 1.5 | 5 | 1095 | GC, CsA, RASi | PR |  | 3 |
| P63 | pAPS | M | 49 | Yes | 18 | 79 | 202 | 0.1 | 1.2 | 4,5 | 805 | GC, PE, PI, dialysis | CR |  | 65 |
| Abbreviations: aHUS, atypical hemolytic uremic syndrome; TTP, thrombotic thrombocytopenic purpura; CD, Castleman’s disease; HSCT, hematopoietic stem cell transplantation; pAPS, primary antiphospholipid syndrome; AKI, acute kidney injury; PLT, platelet; Hb, hemoglobin; LDH, lactate dehydrogenase; Scr, serum creatinine; FPW, foot process width; GC, glucocorticoid; RASi, renin-angiotensin system inhibitors; PE, plasma exchange; PI, plasma infusion; CTX, cyclophosphamide; MMF, mycophenolate mofetil; AHD, antihypertensive drugs; COP, cyclophosphamide, vindesine and glucocorticoid; R, rituximab; VP, vindesine and glucocorticoid; MP, melphala and glucocorticoid; Tac, tacrolimus; CsA, cyclosporine A; CR, complete remission; PR, partial remission; NR, no remission; m, months  a 1, arterial/arteriolar thrombi formation; 2, glomerular thrombi formation; 3, onion skin change of arteries/arterioles; 4, mucoid change of arteries/arterioles; 5, glomerular subendothelial zone widening on electron microscopy. | | | | | | | | | | | | | | | |