Table S1. Clinical and morphological data in patients with and without follow-up

|  |  |  |  |
| --- | --- | --- | --- |
| Parameters | No follow-upN=245 | Follow-up N=403 | Р-value |
| Age, years | 34±13 | 35±12 | 0.70 |
| Men, % | 56 | 55 | 0.83 |
| Average maximal ABP, mm Hg | 115±20 | 117±19 | 0.24 |
| Average ABP (admission), mm Hg | 100±28 | 99±11 | 0.39 |
| eGFR, ml/min/1.37m2 | 80±30 | 65±32  | <0.001 |
| Proteinuria, g/day | 1.53 (0.77; 3.00) | 2.86 (1.51; 5.61) | <0.001 |
| Erythrocyturia, cells/FOV | 15(6; 30) | 20(9; 44) | 0.004 |
| Albumin, g/L | 37.1±4.8 | 34.8±5.9 | <0.001 |
| Nephrotic syndrome,% | 7 | 21 | <0.001 |
| М1, % | 37 | 43 | 0.14 |
| Е1, % | 19 | 26 | 0.048 |
| S1, % | 61 | 77 | <0.001 |
| T1-2,% | 25 | 43 | <0.001 |
| C1-C2, % | 9 | 22 | <0.001 |

Notes: ABP - arterial blood pressure; eGFR - estimated glomerular filtration rate; M1 - mesangial proliferation ≥50%; E1 - endocapillary hypercellularity; S1 - segmental sclerosis/adhesions; C1 - cellular/fibrocellular crescents <25%; C2 - cellular/fibrocellular crescents≥25%; values are presented as fractions/percentages or as mean with its standard deviation (M±SD) or as median with interquartile range (25%;75%)

Table S2. Clinical and demographic parameters in patients who received and not received immunosupression in the follow-up period

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | Without ISTn=219 | ISTn=184 | р |
| Age, years | 34±11 | 35±12 | 0.61 |
| Male sex, % | 55 | 54 | 0.85 |
| Average BP (at admission), mm Hg | 98±11 | 99±10 | 0.20 |
| Average (maximal) BP, mm Hg | 116±20 | 116±18 | 0.58 |
| Tonsillitis, % | 51 | 42 | 0.09 |
| Tonsillectomy, % | 13 | 17 | 0.33 |
| Other inflammatory diseases of the respiratory tract, % | 42 | 51 | 0.22 |
| Inflammatory diseases of the GI tract, % | 45 | 78 | 0.001 |
| eGFR, ml/min/1.73m2 | 68±31 | 62±33  | 0.08 |
| Hemoglobin, g/L | 137±21 | 130±21 | 0.004 |
| Proteinuria, g/day | 2.13(1.06; 3.91) | 4.11(2.19; 7.48) | 0.001 |
| Erythrocyturia, cells/ field of view | 19(7; 45) | 22(12; 41) | 0.07 |
| Albumin, g/L | 36.3±4.9 | 32.9±6.4 | 0.001 |
| Nephrotic syndrome, % | 6 | 19 | 0.001 |
| Serum toatal IgA, g/L | 3.5±1.6 | 3.4±1.1 | 0.70 |
| RASB, % | 93 | 97 | 0.10 |
| PTC, % | 26 | 57 | 0.001 |
| Global sclerosis, %  | 16(6; 33) | 20(8; 36) | 0.25 |
| Segmental sclerosis, % | 10(0; 19) | 13(7; 20) | 0.040 |
| Crescents (all types), % | 24 | 36 | 0.015 |
| М1, % | 38 | 49 | 0.040 |
| Е1, % | 15 | 39 | 0.001 |
| S1, % | 73 | 82 | 0.048 |
| T1-2,% | 39 | 51 | 0.026 |
| Cellular crescents, % | 14 | 32 | 0.001 |

Notes: ABP – arterial blood pressure; eGFR – estimated glomerular filtration rate; IgA – immunoglobulin A; RASB – renin-angiotensin system blockers; PTC –peritubular capillaritis; M1 – mesangial proliferation ≥50%; E1 – endocapillary hypercellularity; S1 – segmental sclerosis/adhesions; C1 – cellular/fibrocellular crescents <25%; C2 – cellular/fibrocellular crescents ≥25%; IST – immunosuppressive therapy; values are presented as fractions/percentages or as mean with its standard deviation (M±SD) or as median with interquartile range (25%;75%)

Table S3. Clinical and morphological data in patients with and without progression of IgA-nephropathy

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | Without progressionN=331 | ProgressionN=72 | р |
| Age, years | 35±12 | 34±11 | 0.65 |
| Male sex, % | 52 | 68 | 0.017 |
| Period from debut to renal biopsy, month | 40 (9;120) | 44 (15;136) | 0.92 |
| Mean BP maximal, mmHg | 114±18 | 127±20 | <0.001 |
| Mean BP, mmHg | 98±11 | 103±10 | 0.001 |
| Tonsillitis, % | 49 | 38 | 0.10 |
| Chronic respiratory diseases, % | 49 | 30 | 0.006 |
| Chronic gastrointestinal diseases, % | 59 | 57 | 0.85 |
| eGFR, ml/min/1.73m2  | 71±30 | 42±29 | <0.001 |
| Daily proteinuria, g | 2,48 (1,30; 5,02) | 4.34 (1.94; 7.09) | <0.001 |
| Albumin, g/L | 35,0±5,8 | 33.7±6.0 | 0.09 |
| Nephrotic syndrome, % | 10 | 20 | 0.023 |
| Immunosuppressive therapy, % | 47 | 39 | 0.17 |
| Haematuria, cells per p/pl | 19 (8;42) | 25 (14;46) | 0.031 |
| Global sclerosis, % | 15 (6;27) | 40 (13;70) | <0.001 |
| Segmental sclerosis, % | 10 (3;17) | 17 (8;25) | <0.001 |
| М1, % | 37 | 65 | <0.001 |
| Е1, % | 24 | 30 | 0.37 |
| S1, % | 75 | 84 | 0.13 |
| Atrophy of tubules/interstitial fibrosisТ0,%Т1,%Т2,% | 68293 | 223939 | <0.0010.10<0.001 |
| C1-2, % | 20 | 31 | 0.049 |
| Any crescents, % | 25 | 46 | 0.001 |
| Interstitial infiltration, % | 51 | 76 | <0.001 |
| PTC (severe), % | 14 | 25 | 0.026 |
| RASB, % | 96 | 91 | 0.26 |
| Immunosuppression, % | 47 | 39 | 0.23 |

Note: BP – blood pressure, eGFR – estimated glomerular filtration rate, M1 – mesangial proliferation ≥50%; E1 – endocapillary hypercellularity; S1 – segmental sclerosis/adhesions; T1 – tubular atrophy/interstitial fibrosis 26-50% of the cortical area, T2 – tubular atrophy/interstitial fibrosis >50% of the cortical area, C – cellular and fibrotic-cellular crescents; C1 – cellular/fibrotic-cellular crescents <25%; C2 – >25% of the tubules, PTC – peritubular capillaritis; RASB – renin-angiotensin system blockers; values are presented as fractions/percentages or as mean with its standard deviation (M±SD) or as median with interquartile range (Me (25%;75%))

Table S4. Clinical and morphological presentation of IgAN in Northeastern Europe and other world regions

|  |  |  |  |
| --- | --- | --- | --- |
| Clinical and morphological parameters | Northeastern Europe (n=648) | Europe [[1]](#footnote-1)6 (n=1147) | Asia13,14,15,34,35 (n=4753) |
| Age, years | 34±12 | 36±16 | 33(25;45)1432.9± 12.0 1332.7 ±11.63434 ±9 1534(18;73)35 |
| Arterial hypertension | 75% | 65% | 11-39 14.15.35 |
| eGFR, ml/min/1.73m2 | 69±32 | 73±30 | 67.6±27.61478.5±26.2 1389±33 1585±3235 |
| eGFR <60 ml/min/1.73m2 | 41% | 37% | 21-2713,14,15  |
| Median daily proteinuria, g | 2.5 (1.5-5.0) | 1.3 (0.6–2.6) | 1.3(0.56;2.5)14 0.89(0.51;1.59)151.3(0.5;18.4)35 |
| Daily proteinuria >3 g | 37% | 21% | 7-9% 13,15 |
| Segmental sclerosis or adhesions (S1) | 74% | 70% | 83%35 |
| Tubular atrophy and interstitial fibrosis>25% (T1-2)25-50% (T1)>50% (T2) | 32%22%9% | 25%21%4% |  27.3-28.813,35 23 – 2413,353.3-5.813.35 |
| Mesangial proliferation >50% (M1) | 41% | 28% | 43-48%13,34 |
| Endocapillary hypercellularity (E1) | 23% | 11% | 11-44.313,35 |
| Crescents <25%, ≥25% (C1-C2) | 27% | 11% | 21.3-48% 14,35 |
| 10-year renal cumulative survivalDialysisDialysis or decreased eGFR >50% | 80%\*56%\* | NDND | 82 - 84.3%13,14,15ND |
| Proportion with outcomeDialysis or end-stage kidney diseaseDialysis or decreased eGFR >50% | 9%\*18%\* | 12%16% | 9-21%14,1514-23%14,15 |
| Follow-up, years | 2.3 (0.9-5.6)\* | 4.7 (2.4-7.9) | 7.9±7.1138.0 (4.7-15.6)145.4 (4.1-7.2)15 |

Note: eGFR – estimated glomerular filtration rate, ND – no data; values are presented as fractions/percentages or as mean with its standard deviation (M±SD) or as median with interquartile range (Me (25%;75%)); \*, n=403; superscripts are references to original studies.

1. [↑](#footnote-ref-1)