**Table 1. Hematology test parameters and neutrophil-to-lymphocyte ratio depending on the malignancy of adrenal mass and presence of the Cushing's syndrome**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | **ACC and CS****(n = 12)** | **ACC without CS****(n = 9)** | **ACA and CS****(n = 11)** | **ACA without CS****(n = 10)** |
| **1** | **2** | **3** | **4** |
| White blood cell count, × 109/L | 9.70 [8.00; 11.20]р1–4 = 0,004 | 7.40 [6.18; 9,32] | 7,85 [6.04; 10.50] | 5.74 [4.60; 6.30] |
| Neutrophils, × 109/L | 7.26 [6.21; 8.94]р1–2 = 0.04р1–3 = 0.03р1–4 = 0.0002 | 4.88 [3.21; 5.80] | 4.77 [3.95; 6.14]р3–4 = 0.004 | 2.91 [1.97; 2.99] |
| Lymphocytes, × 109/L | 1.47 [0.88; 2.10]р1–2 = 0.07 | 1.86 [1.78; 2.25] | 2.21 [1.46; 2.46] | 2.02 [1.76; 2.33] |
| Eosinophils, × 109/L | 0,00 [0.00; 0.03]р1–2 = 0.02р1–4 = 0.01 | 0.22 [0.13; 0.36]р2–3 = 0.02 | 0.05 [0.00; 0.10] | 0.25 [0.04; 0.63] |
| Platelets, × 109/L | 242.00 [215.00; 275.00] | 279.00 [257.25; 324.00]р2–4 = 0.02 | 266.50 [171.00; 295.00] | 227.50 [207,00; 253.00] |
| Neutrophil-to-lymphocyte ratio | 4.87 [3.35; 9.22]р1–2 = 0.009р1–3 = 0.009р1–4 = 0.003 | 2.52 [1.63; 2.70]р2–4 = 0.002 | 2.57 [2.06; 2.72]р3–4 = 0.001 | 1.25 [0.87; 1.66] |

ACA with CS, patients with adrenocortical adenoma with Cushing's syndrome; ACA without CS, patients with adrenocortical adenoma without hypercortisolism; ACC with CS, patients with adrenocortical cancer with Cushing's syndrome; ACC without CS, patients with adrenocortical cancer without hypercortisolism

P, significance of the difference between the patients with ACC with CS, ACC without CS, ACA with CS, and ACA without CS, with Bonferroni correction

The values are given as medians (Me) and 1st and 3rd quartiles [Q25; Q75]

**Table 2. Urine excretion of corticosteroids and their metabolites (gas chromatography-mass spectrometry) depending on the malignancy of adrenal mass and presence of the Cushing's syndrome**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Urinary excretion of corticosteroids, mcg/24 hours** | **ACC and CS****(n = 12)** | **ACC without CS****(n = 9)** | **ACA and CS****(n = 11)** | **ACA without CS****(n = 10)** | **ACC****(n = 21)** | **ACА****(n = 21)** |
| **1** | **2** | **3** | **4** | **5** | **6** |
| Glucocorticoid and mineralocorticoid metabolites |
| 5β-tetrahydro-11-deoxycortisol (5β-ТНS) | 2496 [577; 6157]р1–3 = 0.001р1–4 = 0.0003 | 1000 [690; 3999]р2–3 = 0.006р2–4 = 0.001 | 418 [161; 617]р3–4 = 0.0009 | 71 [40; 132] | 1269 [642; 4507]р5–6 < 0.0001 | 162 [86; 477] |
| 5β-tetrahydrocortisol (5β-ТНF) | 6045 [2251; 9875]р1–2 = 0.003р1–4 = 0.0001 | 931 [616; 1610]р2–3 = 0.007 | 3139 [1480; 4375]р3–4 = 0.001 | 585 [530; 1002] | 2251 [1015; 9181] | 1107 [585; 2162] |
| 5β-tetrahydrocortisone (5β-ТНЕ) | 8153 [2377; 10800]р1–4 = 0.005 | 2289 [1957; 2502] | 3936 [2383; 4316] | 1836 [1567; 2727] | 2526 [2205; 10305] | 2418 [1806; 4194] |
| 5β-tetrahydrocorticosterone (5β-ТНВ) | 401 [185; 800]р1–4 = 0.0006 | 152 [119; 180] | 282 [182; 695]р3–4 = 0.004 | 70 [53; 141] | 271 [148; 571] | 144 [75, 296] |
| Androgen metabolites |
| 11β-hydroxyandrosterone (11β-ОН-An) | 4681 [493; 8574]р1–2 = 0.04р1–3 = 0.005р1–4 = 0.006 | 1170 [806; 1266]р2–3 = 0.007р2–4 = 0.007 | 602 [320; 739] | 656 [460; 818] | 1712 [869; 7899]р5–6 = 0.0006 | 624 [390; 778] |
| Etiocholanolone (Et) | 3658 [544; 6832]р1–3 = 0.003р1–4 = 0.004 | 2203 [1868; 4655]р2–3 = 0.0001р2–4 = 0.0001 | 224 [173; 251] | 190 [151; 407] | 2500 [1594; 5937]р5–6 < 0.0001 | 200 [152; 336] |
| Dehydroepiandrosterone (DНЕА) | 6593 [2211; 21085]р1–3 = 0.002р1–4 = 0.005 | 7441 [1652; 20147]р2–3 = 0.001р2–4 = 0.001 | 9 [5; 15]р3–4 = 0.008 | 46 [23; 87] | 7017 [1449; 17524]р5–6 < 0.0001 | 22 [9; 46] |
| Progestagen metabolites |
| 17-hydrоxypregnanolone (17-ОНP) | 1490 [168; 5836]р1–3 = 0.003р1–4 = 0.001 | 619 [256; 1363]р2–3 = 0.018р2–4 = 0.004 | 161 [57; 300] | 78 [34; 174] | 1112 [384; 2245]р5–6 < 0.0001 | 106 [45; 284] |
| Pregnandiol (Р2) | 6273 [2733; 12992]р1–3 = 0.008р1–4 = 0,005 | 1781 [1249; 3517]р2–3 = 0.001р2–4 = 0.0003 | 378 [281; 977] | 228 [157; 640] | 3528 [1636; 7720]р5–6 = 0.001 | 355 [230; 695] |
| Pregnantriol (Р3) | 2574 [1057; 7145]р1–3 = 0.002р1–4 = 0.007 | 2414 [1170; 4915]р2–3 = 0.0007р2–4 = 0.001 | 303 [241; 437] | 712 [339; 821] | 2414 [1149; 5487]р5–6 = 0.001 | 359 [259; 730] |
| Pregnendiol (dP2) | 4326 [421; 6256]р1–3 = 0.009р1–4 = 0.003 | 3084 [1414; 4984]р2–3 = 0.0004р2–4 = 0.0003 | 212 [95; 525] | 490 [174; 601] | 3214 [1257; 5356]р5–6 = 0.0001 | 396 [108; 555] |

ACA, patients with adrenocortical adenoma; ACA with CS, patients with adrenocortical adenoma with Cushing's syndrome; ACA without CS, patients with adrenocortical adenoma without hypercortisolism; ACC, patients with adrenocortical cancer; ACC with CS, patients with adrenocortical cancer with Cushing's syndrome; ACC without CS, patients with adrenocortical cancer without hypercortisolism

P, significance of the difference between the patients with ACC with CS, ACC without CS, ACA with CS, and ACA without CS, with Bonferroni correction

The values are given as medians (Me) and 1st and 3rd quartiles [Q25; Q75]