**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 = 0.04  р1–3 = 0.03  р1–4 = 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 = 0.02  р1–4 = 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 = 0.009  р1–3 = 0.009  р1–4 = 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 = 0.001  р1–4 = 0.0003 | 1000 [690; 3999]  р2–3 = 0.006  р2–4 = 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 = 0.003  р1–4 = 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 = 0.04  р1–3 = 0.005  р1–4 = 0.006 | 1170 [806; 1266]  р2–3 = 0.007  р2–4 = 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 = 0.003  р1–4 = 0.004 | 2203 [1868; 4655]  р2–3 = 0.0001  р2–4 = 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 = 0.002  р1–4 = 0.005 | 7441 [1652; 20147]  р2–3 = 0.001  р2–4 = 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 = 0.003  р1–4 = 0.001 | 619 [256; 1363]  р2–3 = 0.018  р2–4 = 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 = 0.008  р1–4 = 0,005 | 1781 [1249; 3517]  р2–3 = 0.001  р2–4 = 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 = 0.002  р1–4 = 0.007 | 2414 [1170; 4915]  р2–3 = 0.0007  р2–4 = 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 = 0.009  р1–4 = 0.003 | 3084 [1414; 4984]  р2–3 = 0.0004  р2–4 = 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]