

2-TUR QANDLI DIABET BILAN KASALLANGAN BEMORLARDA ANEMIYA UCHRASH DARAJASI VA KLINIK AHAMIYATI: RETROSPEKTIV TADQIQOT

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Dolzarbli: Qandli diabet kasalligi zamonaviy tibbiyotning jiddiy muammolaridan biri bo'lib, og'ir asoratlari, yuqori nogironlik va o'lim darajasi bilan xarakterlanadi. 2-tur qandli diabet kasalligida makrovaskulyar va mikrovaskulyar zararlanish bilan bir qatorda anemiya ham ko'p uchraydigan, ammo kam ahamiyat beriladigan klinik holat hisoblanadi. Anemiya diabetli bemorlarda surunkali yallig'lanish, eritropoetin sintezining buzilishi, temir funksional yetishmovchiligi va eritrositlar hayot davomiyligining qisqarishi kabi mexanizmlar asosida rivojlanadi. O'zbekiston sharoitida 2-tur qandli diabetli bemorlar orasida anemiya sindromining tarqalishi, xavf omillari va diabet bilan bog'liqligini o'rganish muhim ahamiyat kasb etadi.

Tadqiqot maqsadi: 2-tur qandli diabet bemorlarida anemiya tarqalishini va uning klinik ahamiyatini o'rganish.

Tadqiqot materiallari va usullari: Retrospektiv tahlil 2024-yil yanvar-dekabr oylari davomida Milliy tibbiyot markazining Endokrinologiya bo'limida statsionar davolangan 300 nafar 2-tur qandli diabet bemorlarining kasallik tarixlari hujjatlari asosida o'tkazildi. Tadqiqot ishtirokchilarining o'rtacha yoshi $60,7 \pm 8,2$ yilni tashkil etdi; ulardan 164 nafari ayol (54,7%) va 136 nafari erkaklardan (45,3%) iborat bo'ldi. Bemorlar gemoglobin darajasiga ko'ra ikki guruhga ajratildi: anemiya guruhi ($n=163$) va anemiyasiz guruh ($n=137$). Statistik tahlilda ahamiyatlilik darajasi $p < 0,05$ deb qabul qilindi.

Natijalar va muhokama: Natijalar shuni ko'rsatdiki, statsionarda davolangan bemorlarning 54,3% ida anemiya aniqlangan. Demografik tahlil anemiya mavjud bemorlar sezilarli darajada yoshi katta ekanligini ko'rsatdi ($63,7 \pm 8,1$ va $58,2 \pm 7,5$ yil; $p < 0,05$). Anemiya guruhida ayollar ulushi yuqori bo'lib (70,6%), ayol jins ushbu holatning kuchli prediktori ekanligi aniqlandi ($OR=4,30$; 95% CI: 2,65–6,98). Gemoglobinning o'rtacha darajasi anemiya guruhida ($108,6 \pm 10,1$ g/L) anemiyasiz guruhga ($134,3 \pm 8,5$ g/L) nisbatan ancha past bo'lganligi qayd etildi. Anemiya guruhida glikirlangan gemoglobin darajasi yuqori ($9,9 \pm 1,8\%$) bo'lib, anemiyasiz guruhga ($8,5 \pm 1,6\%$; $p < 0,05$) nisbatan statistik ahamiyatli farq aniqlandi. Yondosh yurak qon-tomir kasalliklari uchrashi tahlil qilinganda, har ikkala guruhda yurak ishemik kasalligi va gipertoniya kasalligi yuqori darajada uchraganligi qayd etildi va guruhlar orasida ushbu kasalliklarning uchrash darajasi bo'yicha statistik ahamiyatli farqlar aniqlanmadi. Surunkali yurak yetishmovchiligi esa anemiya guruhida yuqori darajada uchraganligi aniqlandi (44,8% va 19%, $p < 0,05$).

Xulosalar: Tadqiqot natijalariga ko'ra anemiya 2-tur qandli diabetli bemorlar orasida yuqori darajada tarqalgan bo'lib, ayol jinsi va yosh kabi xavf omillarining anemiya rivojlanishida ahamiyati borligi o'rganildi. Shuningdek, 2-tur qandli diabetli anemik bemorlarda glikirlangan gemoglobin darajasi yuqori ekanligi, surunkali yurak yetishmovchiligi uchrash darajasi ham sezilarli darajada yuqori ekanligi kuzatildi. Xulosa qilib aytganda, ushbu natijalar anemiya sindromi 2-tur qandli diabetli bemorlarda muhim ahamiyatga ega ekanligini va ushbu yo'nalishda tadqiqotlar amalga oshirilishi kerakligini ko'rsatib beradi.

PREVALENCE AND CLINICAL SIGNIFICANCE OF ANEMIA IN PATIENTS WITH TYPE 2 DIABETES MELLITUS: A RETROSPECTIVE STUDY

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Abstract:

Type 2 diabetes mellitus (T2DM) is one of the major global health problems associated with severe complications, high disability, and mortality rates. Anemia in diabetes develops through several mechanisms, including chronic inflammation, impaired erythropoietin synthesis, functional iron deficiency, and reduced erythrocyte lifespan. The present study aimed to evaluate the prevalence of anemia and its clinical significance in patients with type 2 diabetes mellitus. A retrospective analysis was conducted based on medical records of 300 patients with type 2 diabetes mellitus who received inpatient treatment at the Department of Endocrinology of the National Medical Center between January and December 2024. The mean age of the participants was 60.7 ± 8.2 years; 164 patients (54.7%) were female and 136 (45.3%) were male. According to hemoglobin levels, patients were divided into two groups: the anemia group ($n=163$) and the non-anemia group ($n=137$). Statistical significance was considered at $p < 0.05$. The results demonstrated that anemia was identified in 54.3% of hospitalized patients with T2DM. Demographic analysis revealed that patients with anemia were significantly older compared to those without anemia (63.7 ± 8.1 vs. 58.2 ± 7.5 years; $p < 0.05$). Female predominance was observed in the anemia group (70.6%), and female sex was identified as a strong predictor of anemia (OR=4.30; 95% CI: 2.65–6.98). Mean hemoglobin levels were significantly lower in the anemia group (108.6 ± 10.1 g/L) compared to the non-anemia group (134.3 ± 8.5 g/L). Glycated hemoglobin levels were significantly higher in patients with anemia ($9.9 \pm 1.8\%$) than in those without anemia ($8.5 \pm 1.6\%$; $p < 0.05$). Analysis of cardiovascular comorbidities demonstrated a high prevalence of ischemic heart disease and arterial hypertension in both groups, without statistically significant differences between them. However, chronic heart failure was significantly more frequent in the anemia group (44.8% vs. 19%; $p < 0.05$). Research showed that anemia is highly prevalent among patients with type 2 diabetes mellitus, and factors such as female sex and advanced age play an important role in its development. Patients with anemia demonstrated poorer glycemic control and a significantly higher prevalence of chronic heart failure. These findings emphasize the clinical importance of anemia syndrome in patients with T2DM and highlight the need for further research in this field.

Keywords:

type 2 diabetes mellitus; anemia; glycated hemoglobin; chronic heart failure; cardiovascular diseases; hemoglobin; diabetes complications