

QANDLI DIABET 2-TUR BILAN OG'RIGAN BEMOLARDA UYQU BUZILISHI

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Dolzarbli: Qandli diabet (QD) 2-tur bilan og'rigan bemorlarda uyqu buzilishlari tez-tez uchrab, kasallikning kechishiga sezilarli ta'sir ko'rsatadi. Uyqu sifati va davomiyligining buzilishi metabolik nazoratning izdan chiqishiga hamda turli asoratlarni rivojlanish xavfining ortishiga olib keladi. Shu bois, uyqu va glyukoza almashinuvi o'rtasidagi o'zaro bog'liqlikni o'rganish muhim ilmiy va amaliy ahamiyat kasb etadi.

Maqsadi: QD 2-tur bilan og'rigan bemorlarda uyqu buzilishlarining uchrash chastotasi va ularning klinik ahamiyatini o'rganish.

Tadqiqot materiallari va usullari: Tadqiqotda RIEIATMda statsionar davo olgan 20 nafar QD 2-tur bilan kasallangan bemorlar ishtirok etdi. Ulardan 15 nafari (75%) ayol kishi va 5 nafari (25%) erkak kishi, o'rtacha yoshi 56 ± 3 . Bemorlarda antropometrik tekshiruvlar o'tkazildi (tana vazni, bo'yi, tana vazni indeksi (TVI) hamda uyqu sifati maxsus Pitsburg indeksi PSQI, Epvord uyquchanlik shkalasi ESS va diabetik periferik neyropatiya subyektiv NSS so'rovnomalari yordamida baholandi. Shuningdek, glikemik nazorat ko'rsatkichlari (qonda nahorgi va ovqatdan ikki soat o'tgandan so'nggi glyukozasi darajasi, glikirlangan gemoglobin (HbA1c)) tahlil qilindi. Qandli diabet davomiyligi $9,9 \pm 1$. Olingan ma'lumotlar statistik usullar yordamida qayta ishlanib, uyqu buzilishlari va metabolik ko'rsatkichlar o'rtasidagi bog'liqlik o'rganildi.

Natija va muhokama: O'tkazilgan tadqiqot natijalariga ko'ra, qandli diabet bilan kasallangan bemorlarda neyropatiya belgilari (NSS shkalasi bo'yicha) va uyqu buzilishlari (PSQI va ESS shkalalari bo'yicha) keng tarqalganligi aniqlandi. NSS ballari yuqori bo'lgan bemorlarda uyqu sifati sezilarli darajada yomonlashgani, ya'ni PSQI ko'rsatkichlari oshgani kuzatildi. Shu bilan birga, ESS shkalasi natijalari kunduzgi uyquchanlikning ham ushbu bemorlarda tez-tez uchrashini ko'rsatdi. Ishtirokchilar orasida PSQI ko'rsatkichlarining kategoriyalar bo'yicha taqsimoti: 3 nafar (15%) bemorda o'rtacha $4 \pm 1,1$ ball (yaxshi uyqu), 11 nafar 55% bemorda o'rtacha $8,2 \pm 0,4$ ball (yengil muammo), 5 nafar 25% bemorda o'rtacha $11,7 \pm 0,7$ ball (o'rta og'irlikdagi muammo), 1 nafar 5% bemorda 16 ball (og'ir muammo)ni ko'rsatdi. PSQI natijalarga ko'ra, ishtirokchilarning asosiy 55% qismi uyqu buzilishida yengil muammo borligiga to'g'ri keladi. NSS ko'rsatkichlarining kategoriyalar bo'yicha taqsimoti: 8 nafar (40%) bemorda 0 ball (neyropatiya yo'q), 1 nafar (5%) bemorda 3 ball (yengil neyropatiya), 3 nafar 15% bemorda o'rtacha $7,5 \pm 0,3$ ball (o'rta og'irlikdagi neyropatiya), 8 nafar (40%) bemorda o'rtacha $11 \pm 0,5$ ball (og'ir neyropatiya)ni ko'rsatdi. ESS ko'rsatkichlarining kategoriyalar bo'yicha taqsimoti: 6 nafar (30%) bemorda o'rtacha $2 \pm 0,9$ ball (kunduzgi uyquchanlik yo'q), 9 nafar (45%) bemorda o'rtacha $6,8 \pm 0,5$ ball (kunduzgi yengil uyquchanlik), 3 nafar (15%) bemorda o'rtacha $11,7 \pm 0,3$ ball (kunduzgi o'rta og'irlikdagi uyquchanlik), 2 nafar 10% bemorda 18 ball (kunduzgi og'ir uyquchanlik)ni ko'rsatdi. Tahlillar shuni ko'rsatdiki, neyropatiya og'irligi ortgani sari uyqu buzilishlari kuchayib boradi. Ayniqsa, og'riq, paresteziya va noqulay hissiyotlar bemorlarning kechasi tez-tez uyg'onishiga sabab bo'ladi. Bu esa uyquning chuqur fazalarini qisqartirib, kunduzgi holsizlik va uyquchanlikni kuchaytiradi. Uyqu buzilishlari va diabetik neyropatiya o'rtasida o'zaro bog'liq patogenetik mexanizmlar mavjud bo'lib, uyqu yetishmovchiligi insulin rezistentligini kuchaytirishi, neyropatik og'riq esa uyqu sifatini yanada yomonlashtirishi mumkin. Shu bois, NSS, PSQI va ESS shkalalarini kompleks qo'llash diabetli bemorlarda holatni baholashda muhim diagnostik ahamiyatga ega. Natijalar uyqu buzilishlarini erta aniqlash va ularni tuzatish diabetik asoratlarni kamaytirishda muhim ekanligini ko'rsatadi.

Xulosa: Qandli diabet bilan kasallangan bemorlarda uyqu buzilishlari va diabetik neyropatiya o'zaro bog'liq holda uchrashi aniqlandi. NSS, PSQI va ESS shkalalari yordamida o'tkazilgan baholash natijalari uyqu sifati pasayishi va kunduzgi uyquchanlikning ortishi neyropatiya og'irligi bilan bog'liqligini ko'rsatdi. Uyqu buzilishlarini o'z vaqtida aniqlash va bartaraf qilish diabetni samarali nazorat qilish, bemorlarning hayot sifatini yaxshilash hamda asoratlarni rivojlanishini kamaytirishda muhim ahamiyatga ega.

Sleep Disturbances in Patients with Type 2 Diabetes Mellitus

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Abstract. Sleep disturbances are common among patients with type 2 diabetes mellitus (T2DM) and significantly affect the course and prognosis of the disease. Impaired sleep quality and duration contribute to poor metabolic control and increase the risk of diabetic complications. The aim of this study was to evaluate the prevalence and clinical significance of sleep disturbances in patients with T2DM. The study included 20 patients with T2DM who received inpatient treatment at the Republican Specialized Scientific and Practical Medical Center of Endocrinology. Among them, 15 (75%) were women and 5 (25%) were men, with a mean age of 56 ± 3 years. Anthropometric parameters, including body weight, height, and body mass index (BMI), were assessed. Sleep quality and daytime sleepiness were evaluated using the Pittsburgh Sleep Quality Index (PSQI) and Epworth Sleepiness Scale (ESS), while diabetic peripheral neuropathy symptoms were assessed using the Neuropathy Symptom Score (NSS). Glycemic control indicators, including fasting blood glucose, postprandial blood glucose, and glycated hemoglobin (HbA1c), were also analyzed. The average duration of diabetes was 9.9 ± 1 years. The results demonstrated a high prevalence of sleep disturbances and neuropathic symptoms among patients with T2DM. Higher NSS scores were associated with poorer sleep quality and increased daytime sleepiness. According to PSQI results, 15% of patients had good sleep quality, 55% had mild sleep disturbances, 25% had moderate disturbances, and 5% had severe sleep disturbances. ESS results showed that 45% of patients experienced mild daytime sleepiness, while moderate and severe daytime sleepiness were observed in 15% and 10% of patients, respectively. NSS assessment revealed that severe neuropathy was present in 40% of patients. Statistical analysis indicated that the severity of neuropathy correlated with worsening sleep quality and increased daytime sleepiness. Neuropathic pain, paresthesia, and discomfort contributed to frequent nocturnal awakenings, reducing deep sleep phases and leading to fatigue and excessive daytime sleepiness. In addition, sleep deficiency may aggravate insulin resistance, while neuropathic symptoms further impair sleep quality, suggesting a bidirectional relationship between sleep disturbances and diabetic neuropathy. The findings highlight the diagnostic value of the combined use of NSS, PSQI, and ESS scales in evaluating patients with T2DM. Early detection and correction of sleep disturbances may improve metabolic control, enhance quality of life, and reduce the risk of diabetic complications.

Keywords. Type 2 diabetes mellitus; sleep disturbances; diabetic peripheral neuropathy; Pittsburgh Sleep Quality Index; Epworth Sleepiness Scale; Neuropathy Symptom Score; daytime sleepiness; glycemic control; insulin resistance; quality of life.