P. major l. o‘simligidan ajratib olingan polifenollar yig‘indisining tajribaviy qandli diabet dinamikasida qondagi biokimyoviy ko‘rsatkichlardan mineral moddalar almashinuvi va pigment almashinuviga ta‘siri

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Annotatsiya: *Kundan-kunga diabet bilan og‘rigan bemorlar soni oshib bormoqda, olimlarning tinimsiz izlanishlari natijasida bir qancha davo choralari izlab topilmoqda. Biz ham shu yo‘nalishda tadqiqotlar olib borib, P. major l. o‘simligidan ajratib olingan polifenollar yig‘indisining tajribaviy qandli diabet dinamikasida qondagi biokimyoviy ko‘rsatkichlardan mineral moddalar almashinuvi va pigment almashinuviga ta‘sirini o`rgandik, polifenollarning korreksiyalovchi ta‘siri natijasida tajribaviy qandli diabet simptomlarida mineral moddalar almashinuvi va pigment almashinuvi ko‘rsatkichlari intakt ko‘rsatkichlarga yaqinlashdi.*

Kalit so‘zlar: *P. major l., polifenol, qandli diabet, bilirubin, natriy, kaliy, kalsiy.*

Abstract: *Day by day, the number of patients suffering from diabetes is increasing, as a result of the tireless research of scientists, several remedies are being sought. We also conducted research in this direction and P. major l. We studied the effect of the sum of polyphenols isolated from the plant on the dynamics of experimental diabetes from biochemical parameters in the blood on the metabolism of mineral substances and pigment metabolism, as a result of the corrective effect of the polyphenol, the indicators of mineral metabolism and pigment metabolism in the symptoms of experimental diabetes mellitus approached the intact indicators.*

Key words: *P. major l., polyphenol, diabetes, bilirubin, sodium, potassium, calcium.*

Kirish: Tadqiqotlar shuni ko‘rsatdiki, so‘nggi 30 yillikda 1-tip qandli diabet bilan kasallanish dunyo bo‘ylab oshgan [1; 2027–2033–b.; 2; 577–581–b.; 3; 2142–2147–b.]. Masalan, 2002–2003 yillarda yoshlarda 1-tip qandli diabet bilan kasallanish yiliga 100 000 kishiga oshdi. 2011–2012 yillarda AQSh regionining o‘zida 100 000 kishiga ortdi [4; 1419–1429–b.]. 1-tipdagi qandli diabet bilan kasallanish yiliga Afrikada 1,9 dan 7,0% gacha, Osiyoda 0,13–10%, Avstraliyada 4,4%, Yevropada 3,4–36% tashkil etadi. Shimoliy Amerikada 7,61–25,7, Janubiy Amerikada 1,27–18%. 2-tipdagi diabetning tarqalishi Afrikada 0,3 dan 17,9% gacha, Osiyoda 1,2 dan 14,6% gacha, Yevropada 0,7 dan 11,6% gacha, Yaqin Sharqda 4,6 dan 40% gacha, Shimoliy Amerikada 6,69 dan 28,2% gacha va Janubiy Amerikada 2,01 dan 17,4% gacha [5; 1–29–b.]. Jahon sog‘liqni saqlash tashkilotining qandli diabet bo‘yicha global hisobotida ortiqcha vazn yoki semirish 2-tip diabet uchun eng kuchli xavf omili ekanligini va prediabetning bolalar, o‘smirlar va yoshi kattalarda tobora ko‘proq kuzatilayotganini ko‘rsatdi [6; 228–236–b.].

Metodlar: Qon plazmasida bilirubin, natriy, kaliy va kalsiy miqdorlari Humanstar 100 avtomatik analizatorida Human (Germaniya) reagentlari yordamida aniqlandi.

Tadqiqotimizda tajribaviy qandli diabetda organizmdagi almashinuv jarayonlariga *P. major l.* o‘simligidan ajratib olingan polifenollar summasining korreksiyalovchi ta‘sirini baholash maqsadida eksperimental hayvonlar qonida pigment almashinuvi va mineral moddalar almashinuvi ko‘rsatkichlari holati baholandi.

Tajribaviy qandli diabetli kalamushlar qonidagi (21 kun) mineral moddalar almashinuvi va pigment almashinuviga ko‘rsatkichlarga *P.major l.* o‘simligidan olingan summar fenol birikmalarining ta‘siri

1.1–jadval.

Pigment almashinuvi ko‘rsatkichlari				
Bilirubin, mkmol/l	13,2 ± 0,40	9,58 ± 0,34*	8,28 ± 0,24*,a	8,57 ± 0,23*,a

Mineral moddalar almashinuvi ko‘rsatkichlari				
Natriy, mmol/l	152,2 ± 1,21	142,0 ± 0,53*	144,6 ± 0,83*,a	146,8 ± 1,69*,a
Kaliy, mmol/l	7,00 ± 0,12	5,72 ± 0,14*	6,20 ± 0,15*,a	6,37 ± 0,16*,a
Kalsiy, mmol/l	1,82 ± 0,03	2,06 ± 0,03*	1,92 ± 0,04a	1,85 ± 0,06a

*Izoh: * – P < 0,05 intakt guruhi ko‘rsatkichlariga nisbatan; a – P < 0,05 qandli diabet guruhi ko‘rsatkichlariga nisbatan; b – P < 0,05 qandli diabet + P. major l. 50 mg/kg berilgan guruh ko‘rsatkichlariga nisbatan.*

Alloksanli qandli diabetda kalamushlar qonida bilirubin miqdorini o‘rganish uni intakt ko‘rsatkichga nisbatan 27,4 %ga pasayganligini ko‘rsatdi. Kalamushlarga *P. major l.* o‘simligidan olingan polifenollar summasi 50 mg/kg dozada kiritilganda bilirubin miqdori intakt va nazorat ko‘rsatkichlariga nisbatan mos ravishda 37,3 va 13,6 %ga past bo‘ldi. *P. major l.* o‘simligi polifenollari summasi 100 mg/kg dozada kiritilganda bilirubin miqdori intakt va nazorat ko‘rsatkichlariga nisbatan mos ravishda 35,1 va 10,5 %ga past bo‘ldi.

Alloksanli qandli diabetda kalamushlar qonida mineral moddalar almashinuvida ham o‘zgarishlar yuzaga keldi. Bunda qandli diabetli hayvonlar qonida natriy va kaliy miqdorlari intakt ko‘rsatkichlardan mos ravishda 6,7 va 18,3 % ga past bo‘ldi, kalsiy miqdori esa aksincha 13,2 % ga yuqori bo‘ldi. Kalamushlarga *P. major l.* o‘simligidan olingan polifenollar summasi 50 mg/kg dozada kiritilganda natriy va kaliy miqdorlari intakt ko‘rsatkichlaridan past bo‘lganiga qaramay, nazorat ko‘rsatkichlaridan statistik jihatdan ishonchli ravishda yuqori bo‘ldi. Kalsiy miqdori esa intakt ko‘rsatkichdan farqlanmadi. Kalamushlarga *P. major l.* o‘simligidan olingan polifenollar summasi 100 mg/kg dozada kiritilganda mineral moddalar almashinuvidagi o‘zgarishlar 50 mg/kg dozadagi kabi bo‘lib, raqamlar intakt ko‘rsatkichlarga yaqinroq bo‘ldi.

Xulosa: Tadqiqotda alloksanli diabet kechishining 21 kuni eksperimental hayvonlar qonida pigment almashinuvi ko‘rsatkichlaridan bilirubin hamda mineral tuzlardan kaliy, natriy, kalsiy ko‘rsatkichlari miqdori aniqlandi. Yuqoridagi natijalar

P. major l. o‘simligidan olingan polifenollar summasining korreksiyalovchi ta‘siri sababdir.

Foydalanilgan adabiyotlar ro‘yxati

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