Xorazm viloyatida TP53 genidagi Pro72Arg (rs1042522) polimorfizmining mieloproliferativ neoplaziyalar rivojlanishi bilan bog'liqligi

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Xorazm viloyati ko'p tarmoqli tibbiyot markazi
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Maqsad. TP53 genining Pro72Arg (rs1042522) polimorfizmining allelik va genotipik variantlarining mieloproliferativ neoplaziyalar (MPN) rivojlanishiga ta'sirini baholash.

Kalit so'zlar. TP53 genining Pro72Arg polimorfizmi, rs1042522, MPN, molekulyar genetika, gen mutatsiyalari va saraton, mieloproliferativ kasalliklar prognozi.

Materiallar va usullar. 110 nafar klinik va genetika jihatidan tasdiqlangan Ph–musbat va Ph–manfiy MPN holatlari bo'lgan bemorlarda Pro72Arg (rs1042522) polimorfizmining TP53 geni tomonidan MPN rivojlanishiga va klinik kechishining prognoziga ta'sirini o'rganish ishlari olib borildi. Ulardan 34 tasi (XML – 26, IP – 7, IT–1) Xorazm viloyatining noqulay hududlarida yashagan (I–guruh) va 76 tasi (XML – 40, IP – 24, IT – 10, PMF – 2) viloyatning nisbatan qulay hududlarida yashagan (II–guruh). Boshqa guruh sifatida 105 nafar sog'lom, yaqin qarindosh bo'lmagan o'zbekistonliklar DNK namunalaridan foydalanildi.

Olingan natijalar. Olingan ma'lumotlarga ko'ra, Pro alleli kasalliklarning rivojlanish ehtimoli bilan bog'liq bo'lib, kontrol guruhidagi yuqori Arg alleli tez-tezligi uning himoya ta'sirini ko'rsatadi ($\chi^2 = 12,4$; p = 0,01). Xorazm viloyatining noqulay hududlarida Pro/Pro genotipi sezilarli darajada keng tarqalgan ($\chi^2=5,6$; p=0,03; RR=3,6; 95%CI:1,05-12,38;) va MPN rivojlanish xavfini 2 martadan ortiq oshiradi (OR=4,2; 95%CI:1,27-13,57). Pro/Arg genotipi ($\chi^2 = 5,9$; p = 0,03) kasalliklar rivojlanishi bilan sezilarli bog'liq bo'lib, MPN rivojlanish xavfini 2 martadan ortiq oshiradi (OR = 2,1; 95% CI: 1,15-3,77). Arg/Arg genotipi ($\chi^2 = 11,1$; p = 0,01) esa, aksincha, himoya ta'siri bilan bog'liq bo'lib, uning kontrol guruhida yuqori tez-tezligi kasallikning rivojlanish xavfini kamaytiruvchi omil sifatida tasdiqlanadi.

Xulosa. TP53 genining Pro72arg polimorfizmi miyeloproliferativ neoplaziyalar (MPN) patogenezida muhim rol o'ynaydi. 72-pozitsiyada prolinni arginin bilan almashtirish bo'lgan bu polimorfizm hujayra siklini tartibga solish, apoptoz va genomik barqarorlikni saqlashda ishtirok etadigan p53 oqsilining funktsional xususiyatlariga ta'sir qiladi. Turli allellar apoptoz yo'llarini turli yo'llar bilan faollashtirishi mumkin, bu esa o'simta kasalliklariga moyillikdagi farqlarga olib keladi. Tadqiqotlar shuni ko'rsatadiki, ba'zi allel tashuvchilar hujayra o'sishi va differentsiatsiyasini tartibga solishdagi buzilishlar tufayli politsitemiya Vera va muhim trombotsitemiya kabi miyeloproliferativ kasalliklarni rivojlanish xavfi yuqori. TP53 genidagi Pro72Arg polimorfizmini tahlil qilish natijalari Pro allelining kasallik xavfi ortishi bilan bog'liqligini ko'rsatadigan bir qator oldingi tadqiqotlar natijalarini qo'llab-quvvatlaydi. Pro alleli saraton kasalligi bilan og'rigan bemorlarda sezilarli darajada ustun ekanligini ko'rsatdi, bu bizning ma'lumotlarimizga mos keladi. Shu bilan birga, Shen va boshqalarning tadqiqotlari. (2020) arg allelining himoya ta'siriga ega ekanligini ko'rsatdi, bu bizning nazorat guruhidagi yuqori darajadagi kuzatuvimiz bilan tasdiqlangan. Bemorlar guruhida Pro/Arg genotipining statistik jihatdan ahamiyatli ustunligi haqidagi topilmamiz Ahmed, S. va boshq. (2023), bu genotip o'simta rivojlanish xavfining oshishi bilan bog'liqligi aniqlangan. Umuman olganda, bizning topilmalarimiz TP53 genidagi pro72arg polimorfizmining turli kasalliklarning patogenezida asosiy omil sifatida muhimligini ta'kidlab, mavjud ma'lumotlarni qo'llab-quvvatlaydi va uning ta'sir mexanizmini aniqlash uchun qo'shimcha tekshirishni talab qiladi.

Adabiyotlar.

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