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Bolalarda diabetik neyropatiyani tashxislashda zamonaviy yondashuv

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Annatosiya

Ushbu maqolada kichik o`lchamdagi nerv tolalarda diabetik neyropatiya uchun diagnostika usullari tasvirlangan, bu yerda sezgi buzilishlari va avtonom asab tizimining buzilishlari ustunlik qiladi. Ishda gangliozidlarga qarshi antitanalar GM1 IgM, GD1b IgG va HLA tez-tez uchraydigan 45 bola tekshirildi. Tadqiqot natijalari diabetik neyropatiyali bolalarda ushbu tadqiqot usuli differentsial tashxis qo`yishda yordam berishini ko`rsatdi.

Kalit so'zlar: kichik o`lchamdagi nerv tolalari neyropatiyasi, dizesteziya, antigangliozid antitanalar, giperalgeziya

Современный подход к диагностике диабетической нейропатии у детей

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Резюме

В трех статьях описаны методы диагностики диабетической нейропатии мелких нервных волокон, где преобладают сенсорные процессы и нарушения вегетативной нервной системы. В исследовании обследовано 45 детей с частым появлением антиганглиозидных антител GM1 IgM, GD1b IgG и HLA. Медицинская помощь с целью выяснить, помогает ли этот метод исследования в дифференциальной диагностике у детей с диабетической нейропатией.

Ключевые слова: нейропатия мелких нервных волокон, дизестезия, антиганглиозидные антитела, гипералгезия.

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Modern approach to diagnosis of diabetic neuropathy in children

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Summary

Three articles describe methods for diagnosing diabetic small nerve fiber neuropathy, where sensory processes and disorders of the autonomic nervous system predominate. The study examined 45 children with frequent occurrence of anti-ganglioside antibodies GM1 IgM, GD1b IgG and HLA. Medical assistance to determine whether this test helps in the differential diagnosis of children with diabetic neuropathy.

Key words: small nerve fiber neuropathy, dysesthesia, antiganglioside antibodies, hyperalgesia.

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Kirish: Ko'pgina hollarda diabetik neyropatiya (DN) bilan patologik jarayonda barcha o'lchamdagi nerv tolalari ishtirok etadi, ammo ba'zi hollarda zarar asosan katta yoki kichik tolalar bilan chegaralanadi. DNda asosan mayda nerv tolalari ta'sirlanadi, ular igna sanchilishiga sezuvchanlikning pasayishi, og'riqli yonish hissi shaklida disesteziya mavjudligida harorat sezgiligi va avtonom asab tizimining buzilishi kabi belgilar bilan namoyon bo'ladi. Harakat kuchi, muvozanat va pay reflekslari nisbatan yaxshi saqlanadi. Antigangliozid antitanalarini aniqlashning asosiy ko'rsatkichlari Giyen-Barre sindromi, jumladan Miller-Fisher sindromi, multifokal motor neyropatiyasi va sensor neyropatiyadir. Adabiyotlarga ko'ra, monosialogangliozid GM1 IgM ga antitanalar 80-90% [1, 2, 3] tez-tez uchraydigan multifokal motorli neyropatiya bilan bog'liq. Bundan tashqari, 82-95% hollarda Giyen-Barre sindromi bo'lgan bemorlarda monosialogangliozid GM1 ga antitanalarning ko'tarilgan titri aniqlanadi. Titr kasallikning faolligi bilan bog'liq. O'tkir bosqichda titr maksimal qiymatlarga ko'tariladi va kasallik davrida pasayadi [4]. Sensor neyropatiyasi bo'lgan bemorlarda kamdan-kam hollarda disialogangliozid GD1b IgG ga antitanalar tasvirlangan [5]. Biroq, bu jarayon to'liq o'rganilmagan.

Tadqiqot maqsadi: diabetik neyropatiya uchun xos bo`lgan diagnostika mezonlarini o'rganish.

Materiallar va usullar. 2 guruhdagi bemorlar tekshirildi. Birinchi guruh periferik asab tizimining o'tkir kasalliklari bo'lgan 25 bemordan iborat edi. Nazorat guruhiga 20 nafar bemor tayinlandi. Barcha bemorlarda «Ganglioside-Profile 2 Euroline IgMand IgG» to'plamidan foydalangan holda antineyronal gangliozidlarga qarshi antitanalar aniqlandi. Ushbu to'plam immunobloting yo'li bilan inson zardobida yoki plazmasida gangliozidlarga IgM va IgG antitanalarini aniqlash uchun mo'ljallangan. Usul printsipi shundan iboratki, «Ganglioside-Profile 2 EurolineIgMandIgG» testi inson zardobida va plazmasida yetti gangliozidga: GM1, GD1b, HLA ga IgM va IgG sinflarining antitanalarini in vitroda sifatli aniqlash uchun mo'ljallangan. To'plamda tozalash uchun ishlatiladigan chiziqlar mavjud bo'lib, ular yuqori darajada tozalangan antigenlarning parallel chiziqlari bilan qoplangan. Reaksiyaning birinchi bosqichida chiziqlar bemordan suyultirilgan sarum yoki plazma namunasi bilan inkubatsiya qilinadi. Agar namuna ijobiy bo'lsa, IgM va IgG sinflarining o'ziga xos antitanalari mos keladigan antigenik bantlar bilan bog'lanadi. Bog'langan antitanalarni aniqlash uchun rang reaktsiyasini keltirib chiqarishga qodir bo'lgan ferment konyugati (ishqoriy fosfataza bilan belgilangan

1-JADVAL.

Antineyronalni aniqlash chastotasi ikki guruhda tekshirilgan bemorlarda antigangliozid antitanalari.

Tekshiruv guruhlari	GM1	GD1b	HLA
Diabetik neyropatiya bilan og'rigan bemorlar (I guruh, n=25)	25		21
Nazorat guruhi (II guruh, n=20)	0		

2-JADVAL.

Eng keng tarqalgan antineyronalni aniqlash chastotasi (%) tekshirilgan bemorlarda antigangliozid antitanalari.

Tekshiruv guruhlari	GM1 IgM	GD1b IgG	HLA	Kamida bitta turdagi antitana
I guruh (n=25)	88.7	86.4	68.3	95.2
II guruh (n=20)	5.0	5.0	0	12.5

3-JADVAL.

Ikki guruhdagi tekshirilgan bemorlar orasida antineyronal antigangliozid antitanalari uchraydiganlarni aniqlashda farqlarning ishonchliligi.

Antitana turi		I guruh (n=20)	II guruh (n=15)
GM1 IgM	I guruh	P=0,041	P=0,071
	II guruh		P=0,41
GD1b IgG	I guruh	P=0,039	P=0,005
	II guruh		P=0,31
HLA	I guruh	P=0,051	P=0,005
	II guruh		P=0,27
Kamida bitta antitana turi	I guruh	P=0,078	P=0,01
	II guruh		P=0,15

IgG antitanalari) yordamida ikkinchi inkubatsiya amalga oshiriladi.

Tadqiqot natijalari shuni ko'rsatdiki periferik nerv tizimining (PNS) o'tkir kasalliklari bilan og'rigan bemorlar guruhida biz antineyronlarning yuqori chastotasini aniqladik, gangliozidga qarshi antitanalar GM1, GD1b va HLA - mos ravishda 88,7%, 86,4% va 68,3% (1, 2-jadval). Shuningdek, I guruhdagi bemorlarning 95,2 foizida, II guruhdagi bemorlarning 12,5 foizida kamida bitta turdagi antitanalar mavjudligi aniqlandi (2-jadval).

Antineyronalni aniqlash chastotasi ko'rsatkichlari gangliozidlarga qarshi antitanalar GM1 IgM, GD1b IgG, HLA Birinchi guruhdagi IgG yoki kamida bitta turdagi antitanalar ikkinchi guruh ko'rsatkichlaridan sezilarli darajada farq qildi (3-jadval).

Antineyronalni aniqlash chastotasining ortishi antigangliozid antitanalari GM1 IgM, GD1b IgG, HLA yoki periferik asab tizimining o'tkir kasalliklari bo'lgan bemorlar guruhida kamida bitta turdagi antitanalar periferik asab tizimining o'tkir kasalliklari bilan og'rigan bemorlarning qon zardobida va qon plazmasida gangliozidga: GM1, GD1b, HLA ga IgM va IgG sinflari antitanalarini in vitroda sifatli aniqlashning yuqori diagnostik ahamiyatini isbotlaydi. Adabiyotlarga ko'ra [6, 7, 8], monosialo gangliozid GM1 IgM ga antitanalar 80-90% chastotali multifokal motor neyropatiyasi bilan bog'liq. Bundan tashqari, 82-95% hollarda Giyen-Barre sindromi bo'lgan bemorlarda monosialogangliozid GM1 IgM ga antitanalarning ko'tarilgan titri aniqlanadi.

3-jadvaldan ko'rinib turibdiki, bizning ma'lumotlarimizga ko'ra, periferik asab tizimining o'tkir kasalliklari bilan og'rigan bemorlarda bir xil antitananing paydo bo'lish chastotasi 85,7% ni tashkil qiladi. Sensor neyropatisi bo'lgan bemorlarda disialogangliosid GD1b IgG antitanalar tasvirlangan. Bemorlar guruhida periferik asab tizimining o'tkir kasalliklari, bu antitananing 84,3% paydo bo'lish chastotasi, Giyen-Barre sindromidagi antitanalarning II guruhida (P = 0,036) disialogangliozid GD1b ga antitanalarning paydo bo'lish chastotasi bilan sezilarli farqlarga ega.

Xulosa. Shunday qilib, biz polinevopatiya bilan og'rigan bemorlarda GM1, GD1b va HLA antitanalarining ko'payishini aniqladik, bu ushbu autoimmun kasallik uchun yangi diagnostik mezon bo'lib xizmat qilishi mumkin, bu uning genetik moyilligini isbotlaydi.

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