

БИОМЕДИЦИНА ВА АМАЛИЁТ ЖУРНАЛИ

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MANAGEMENT OF RECURRENT VESICOURETERAL REFLUX AFTER URETERAL REIMPLANTATION IN CHILDREN: A COMPREHENSIVE LITERATURE REVIEW

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ANNOTATION

Vesicoureteral reflux (VUR) is a prevalent pediatric urological condition, often leading to significant morbidity, including recurrent urinary tract infections (UTIs) and progressive renal scarring. While primary ureteral reimplantation boasts high success rates, a considerable number of children experience persistent or recurrent VUR, or develop new complications such as ureteral obstruction, necessitating further intervention. This comprehensive review synthesizes evidence, delineating the incidence, multifactorial causes, and diverse management strategies for VUR following initial surgical failure. Emphasis is placed on both less invasive endoscopic corrections utilizing bulking agents and various reoperative approaches, including open, laparoscopic, and robotic-assisted techniques. The review examines their reported efficacies, technical considerations, influencing factors for success, and associated complications, concluding with an individualized approach to care that prioritizes bladder function assessment.

Keywords: vesico-ureteral reflux, endoscopic correction, ureteral reimplantation, bulking agent.

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QAYTALANUVCHI VEZIKOURETERAL REFLYUKSNI DAVOLASH:
KENG QAMROVLI ADABIYOTLAR SHARHI****ANNOTATSIYA**

Vezikoureteral reflyuks (VUR) bolalarda keng tarqalgan urologik kasallik bo'lib, ko'pincha jiddiy asoratlarga, jumladan, qaytalanuvchi siydik yo'llari infeksiyalari (SYI) va progressiv buyrak chandiqlanishiga olib kelishi mumkin. Birlamchi siydik nayi reimplantatsiyasi yuqori samaradorlikka ega bo'lsa-da, ushbu amaliyotdan so'ng ba'zi bemor bolalarda VUR qaytalanishi kuzatiladi yoki siydik nayi obstruksiya kabi yangi asoratlar paydo bo'ladi, bu esa ayrim holatlarda qo'shimcha davolanishni talab etadi. Ushbu keng qamrovli tahlil 1974 yildan bugungi kungacha bo'lgan davrda siydik nayi reimplantatsiyasidan so'ng rivojlanuvchi qayta VUR holatlarini yoritgan turli manbalardan olingan ma'lumotlarni umumlashtirib, dastlabki jarrohlik muvaffaqiyatsizligidan so'ng VURning uchrashi, uning ko'p omilli sabablari va turli xil davolash usullarini yoritib berishga qaratilgan. Kam invaziv endoskopik korreksiya, hajm hosil qiluvchi moddalardan foydalanishga, shuningdek, ochiq, laparoskopik va robot yordamida amalga oshiriladigan turli qayta operatsiya usullariga alohida e'tibor qaratilgan. Tahlilda ushbu usullarning samaradorligi, texnik jihatlari, muvaffaqiyatga ta'sir etuvchi omillar va ular bilan bog'liq asoratlar tanqidiy o'rganiladi hamda qovuq funksiyasini baholashga ustuvor ahamiyat beradigan individual yondashuv bilan yakunlanadi.

Kalit so'zlar: vezikoureteral reflyuks, endoskopik korreksiya, siydik nayi reimplantatsiyasi, hajm hosil qiluvchi preparat.

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ПОСЛЕ РЕИМПЛАНТАЦИИ МОЧЕТОЧНИКА У ДЕТЕЙ:
ОБЗОР ЛИТЕРАТУРЫ****АННОТАЦИЯ**

Пузырно-мочеточниковый рефлюкс (ПМР) - распространенное урологическое заболевание у детей, которое часто может приводить к серьезным осложнениям, включая рецидивирующие инфекции мочевыводящих путей (ИМП) и прогрессирующее рубцевание почек. Хотя первичная реимплантация мочеточника обладает высокой эффективностью, после этой операции у некоторых детей наблюдается рецидив ПМР или возникают новые осложнения, такие как обструкция мочеточника, что в некоторых случаях требует дополнительного оперативного лечения. Этот всесторонний анализ, обобщающий данные из различных источников о случаях повторного ПМР, развивающегося после реимплантации мочеточника с 1974 года по настоящее время, направлен на освещение частоты повторного ПМР, его

многофакторных причин и различных методов лечения. Особое внимание уделено малоинвазивной эндоскопической коррекции, использованию объемообразующих веществ, а также различным методам повторных операций, выполняемых открытым способом, лапароскопически и с помощью робота. Анализируются эффективность, технические аспекты, факторы, влияющие на успех, и связанные с ними осложнения этих методов. Завершается обзор индивидуальным подходом, который придает приоритетное значение оценке функции мочевого пузыря.

Ключевые слова: пузырно-мочеточниковый рефлюкс, эндоскопическая коррекция, реимплантация мочеточника, объемообразующий препарат.

Kirish

Vezikoureteral reflyuks (VUR) qovuqdan yuqori siydik yo'llariga siydikning teskari oqimi bilan xarakterlanadi va bolalar urologiyasida keng uchraydigan holat hisoblanadi. U sog'lom bolalarning taxminan 0,4%-1,8% ida kuzatiladi [1]. VUR bilan og'rigan bemorlarning aka-ukalari (46%) va siydik yo'llari infeksiyasi (SYI) bilan murojaat qilgan bolalar (30%) kabi ma'lum guruhlarda uning uchrashi sezilarli darajada yuqori bo'ladi [1,2]. Bolalarda VURni aniqlash va davolashning asosiy maqsadi qaytalanuvchi SYI, piyelonefrit, gipertoniya va surunkali buyrak yetishmovchiligi kabi jiddiy uzoq muddatli asoratlarning oldini olishdan iborat [3, 4].

Konservativ choralarga javob bermaydigan VURni davolashda siydik nayi reimplantatsiyasi uzoq vaqtdan beri oltin standart hisoblanib keladi. Kohen, Politano-Leadbetter va Lich-Gregoir kabi an'anaviy ochiq va zamonaviy minimal invaziv reimplantatsiya usullari odatda yuqori samaradorlikka erishadi, birlamchi VUR uchun bu ko'rsatkich ko'pincha 95-99% oralig'ida qayd etiladi [1, 3-7]. Dastlabki ijobiy natijalarga qaramay, bemorlarning sezilarli qismida davolash samarasiz yakunlanishi mumkin. Siydik nayi dastlabki reimplantatsiyasidan so'ng qaytalanuvchi VUR uchrash darajasi adabiyotlarda keng ko'lamda, 2% dan 60%gacha o'zgarib turadi [5, 8]. Bemorlarning bu murakkab guruhi oxir-oqibat takroriy operatsiyalarni talab qilishi mumkin, bunday zaruriyat 7,5% gacha hollarda kuzatilgan [1, 8, 9]. Ushbu sharh mazkur muvaffaqiyatsizliklarning asosiy sabablarini aniqlash va mavjud davolash usullarini tizimli baholashga qaratilgan.

I. Siydik nayi reimplantatsiyasi muvaffaqiyatsizligining uchrash darajasi va sabablari

Siydik nayi dastlabki reimplantatsiyasidan so'ng qaytalanuvchi VURning qayd etilgan uchrash darajasi turlicha bo'lib, bemorlarning 2% dan 60% gachani tashkil etadi [8]. Birlamchi megaureter kabi o'ziga xos murakkab holatlarda VURning qaytalanishi darajasi 20%gacha yetishi mumkin [8]. Bolalarda buyrak transplantatsiyasi o'tkazilganda, ko'chirib o'tkazilgan buyrakda VUR bemorlarning 12% dan 60% gachada aniqlanadi [8]. Umuman olganda, takroriy qayta operatsiyalarni o'tkazish 7,5% gacha hollarda to'g'ri keladi [1, 8, 9].

Siydik nayining dastlabki reimplantatsiyasi muvaffaqiyatsizligi odatda ko'p omillarga bog'liq bo'lib, bu dastlabki jarrohlik paytidagi texnik muammolar, qovuq funksiyasining buzilishi yoki anatomik tuzilishning murakkabligi bilan bog'liq. Quyida ushbu omillar batafsil yoritib o'tiladi.

1. Texnik muammolar:

Shilliqosti kanalining yetarli uzunlikka ega emasligi ko'pincha muvaffaqiyatsizlikning asosiy sababi sifatida ko'rsatiladi [7, 9-11]. Samarali antireflyuks mexanizmi ta'minlash uchun intramural siydik nayining uzunligi va eni nisbati 5:1 bo'lishi tavsiya etiladi [1, 2, 11].

Siydik nayining qovuq devoriga burchak hosil qilib kirishi, ayniqsa shilliqosti kanalining yuqori qismida, obstruksiyaga olib kelishi mumkin [10, 12, 13]. Agar neohiatus qovuqning harakatlanuvchi qismiga juda yuqori va yon tomonga joylashtirilsa, bu qovuq to'lganida burchak hosil qilib, "yuqori reimplantatsiya sindromi" ko'rinishida namoyon bo'lishi mumkin [10].

Siydik nayi terminal qismining fibrozi, ko'pincha qon ta'minotining buzilishi natijasida yuzaga kelib, obstruksiyaga sabab bo'lishi mumkin [10, 12].

Siydik nayining Lyeto uchburchagida noto'g'ri joylashuvi [10, 12], haddan tashqari tor neohiatus yoki eski detruzor defektining zich yopilishi hiatal obstruksiyaga olib kelishi mumkin [10].

Siydik nayi duplikatsiyasi holatlarida, Valdeyer qobig'i ichida yoki siydik nayi teshigida oldingi endoskopik inyeksiya implantlari takroriy operatsiya paytida siydik nayi teshigini ko'rish va aniqlashni qiyinlashtirishi mumkin [14].

Qaytalanuvchi reflyuksning kam uchraydigan, ammo tan olingan sababi yangi teshikdan proksimal tomonda siydik nayi-qovuq oqmasining rivojlanishidir [7, 10, 15].

2. Qovuq disfunktsiyasi:

Yomon komplyantli va/yoki haddan tashqari faol qovuq (giperaktiv) reimplantatsiya muvaffaqiyatsizligiga sabab bo'luvchi asosiy omillardan biri hisoblanadi [1, 10]. Buni urodinamik tekshiruv orqali aniqlash mumkin bo'lib, bu kabi tekshiruv muvaffaqiyatsiz reimplantatsiya bo'lgan barcha bemorlarga o'tkazish tavsiya etiladi [10].

Detruzor giperaktivligi (DG) va pastki siydik yo'llari disfunktsiyasi (PSYD) odatda VUR operatsiyasi muvaffaqiyatsiz bo'lgan bolalarda kuzatiladi [16]. Bir tadqiqotda muvaffaqiyatsiz operatsiya o'tkazgan bemorlarning 77,4% ida DG va 69,8% ida PSYD qayd etilgan [16]. Ikki tomonlama VUR bilan og'rigan bemorlarda DGning og'irlik darajasi sezilarli darajada yuqori bo'lishi aniqlangan [16].

Davolanmagan qovuq muammolariga ko'plab muvaffaqiyatsiz reimplantatsiyalarning asosiy sababi sifatida qaraladi [17]. Saqlanib qoluvchi qovuq disfunktsiyasining mavjudligi keyingi endoskopik korreksiyaning muvaffaqiyat darajasini pasaytiruvchi statistik ahamiyatga ega omil hisoblanadi [6, 18, 19]. Yuqori intravezikal bosim inyeksiya qilinadigan hajm hosil qiluvchi moddalarni siqib chiqarishi mumkin, bu esa salbiy natijalarga olib keladi [18, 20].

3. Murakkab anatomiya:

Birlamchi megaureter bilan bog'liq holatlar, ayniqsa toraytirish (моделирование) talab qilinadiganlari, operatsiyadan keyingi qaytalanuvchi reflyuksning yuqori xavfi bilan bog'liq [19, 21].

Boshqa murakkab anomalialar, jumladan ikkilangan tizimlar, ureterosele va uretra orqa klapanlari kabi holatlar dastlabki jarrohlik amaliyotlarini murakkablashtirishi va muvaffaqiyatsizlik ehtimolini oshirishi mumkin [1, 4, 8, 9, 19, 20].

4. Dastlabki jarrohlik amaliyoti vaqtidagi bemorning yoshi:

Dastlabki reimplantatsiya paytida bemorning o'ta yosh bo'lishi, ayniqsa bir yoshdan kichik bo'lish, muvaffaqiyatsizlik darajasining yuqori bo'lishi bilan bog'liq [19, 22].

5. Kechikkan qaytalanish:

Reflyuks dastlabki jarrohlik amaliyotidan so'ng bir necha yil o'tgach ham qaytalashi mumkin, ba'zi hollarda bu reimplantatsiyadan keyin 1-3 yil oralig'ida kuzatiladi. Bunday kechikkan qaytalanish ko'pincha siydik nayi reimplantatsiya qilingan qovuq devori zaifligi bilan bog'liq. Bu operatsiyadan keyingi uzoq muddatli kuzatuvning, eng yaxshisi kamida 5 yil davomida, muhimligini ta'kidlaydi, chunki u kechikkan muvaffaqiyatsizliklarni aniqlash imkonini beradi [23].

II. Muvaffaqiyatsiz reimplantatsiyani davolash strategiyalari

Siydik nayi reimplantatsiyasi muvaffaqiyatsizligidan so'ng rivojlangan qayta VURni davolashga yondashuv o'ziga xos bo'lib, reflyuks darajasi, muvaffaqiyatsizlikning aniq sababi, qovuq disfunktsiyasi mavjudligi va bemorning umumiy klinik holati kabi omillarni hisobga olgan holda individual strategiyani ishlab chiqishni talab etadi. Davolash usullari oddiy kuzatuvdan tortib endoskopik aralashuv va takroriy reimplantatsiya amaliyotlarigacha bo'lishi mumkin.

1. Kuzatuv/konservativ davolash.

VURning o'z-o'zidan yo'qolishi hatto muvaffaqiyatsiz reimplantatsiyadan keyin ham, ayniqsa past darajadagi reflyuksda kuzatilishi mumkin. Tadqiqotlarda aniqlanishicha, reimplantatsiyadan so'ng qaytalanuvchi VUR (I daraja va undan yuqori) bilan og'rigan bemorlarning ko'pchiligi o'z-o'zidan tuzalish holatini boshdan kechiradi, buning o'rtacha muddati 20,4 oyni tashkil etadi [19]. Aniqroq aytganda, 72,2% qaytalanuvchi VUR (I daraja va undan yuqori) bilan og'rigan bemorlar va 65,6% klinik ahamiyatga ega VUR (II daraja va undan yuqori) bilan og'rigan bemorlar o'z-o'zidan tuzalgan [19]. Bundan tashqari, erta (masalan, operatsiyadan 6 oy o'tgach) aniqlangan ko'plab qayta VUR holatlari keyinchalik hech qanday aralashuvlarsiz (xirurgik amaliyotsiz) o'tib ketadi [9, 24, 25]. Bu shuni anglatadiki, ko'pincha antibiotik profilaktikasi bilan birga kuzatish va kutish davri, ayniqsa past darajali yoki simptomsiz reflyuks uchun samarali boshlang'ich strategiya

bo'lishi mumkin [9, 11]. Biroq, doimiy takrorlanuvchi siydik yo'llari infeksiyalari yoki buyrak faoliyatining izchil yomonlashuvi kuzatilsa, faol aralashuv talab etiladi [1, 20].

2. Hajm hosil qiluvchi moddalar yordamida endoskopik tuzatish.

Hajm hosil qiluvchi preparatlar yordamida endoskopik korreksiya (EK) kam invaziv usul bo'lib, ko'pincha murakkab qayta operatsiyalarga o'tishdan avval qayta VUR uchun birinchi tanlov sifatida ko'rib chiqiladi [3, 4, 26].

Keng qo'llaniladigan hajm hosil qiluvchi moddalarga Deflux (dekstranomer/gialuron kislota sopolimeri - Dx/HA) [3, 4, 20] va politetraftoretlen (PTFE, Teflon) ishlatilgan [3, 9, 27]. STING (Subureterik teflon inyeeksiyasi) texnikasi va uning o'zgartirilgan ko'rinishlari (masalan, modifikatsiyalangan STING, HIT texnikasi) standart inyeeksiya usullari hisoblanadi [3, 6, 9, 20, 27]. Kross-trigonal reimplantatsiyalar uchun (Koen texnikasi) siydik nayi kateterni ko'chirilgan siydik nayi teshigini aniqlash va inyeeksiyani osonlashtirish uchun yo'lko'rsatgich [проводник] sifatida ishlatish mumkin [9, 11, 18]. Transuretral kirish qiyin bo'lgan kamdan-kam hollarda, sistoskopik nazorat ostida teri orqali inyeeksiya texnikasini qo'llash mumkin [4].

Samaradorligi:

Reimplantatsiyadan keyingi qayta VUR uchun endoskopik korreksiyaning umumiy muvaffaqiyat ko'rsatkichlari turlicha. Ko'p markazli tadqiqot natijalariga ko'ra, bir martalik inyeeksiyadan so'ng dastlabki muvaffaqiyat 41,3%ni tashkil etdi, bu ko'rsatkich pasaytirilgan darajadagi reflyuksning takroriy muolajasi bilan 52,2%gacha oshdi [8].

Boshqa tadqiqotlar bir martalik inyeeksiyaning muvaffaqiyat darajasini 68% dan 83% gacha deb ma'lumot beradi [1, 3, 4, 6, 18, 19]. Ko'p sonli inyeeksiyalarda (3 tagacha) tuzalish darajasi sezilarli yaxshilanishi mumkin va 84-95%ga yetadi [3, 4, 6, 18].

Kohen reimplantatsiyasidan keyingi qaytalagan VUR bo'yicha o'tkazilgan tadqiqotda 66,67% muvaffaqiyat darajasi (15 ta siydik nayi birligidan 10 tasi) 15 ta siydik nayi birligida 21 ta inyeeksiyadan so'ng qayd etildi, ba'zi hollarda takroriy muolajalar talab etildi [5].

Ko'chirib o'tkazilgan buyraklardagi VUR natijalari odatda kamroq ijobiy bo'lib, tuzalish darajasi 25% dan 55% gacha ko'rsatilgan [6, 18, 23].

Siydik nayi reimplantatsiyasidan so'ng qaytalagan VUR uchun Deflux inyeeksiyasini olgan qovuq disfunktsiyali bolalarda o'tkazilgan maxsus tadqiqotda dastlabki muvaffaqiyat darajasi atigi 25%ni tashkil etgani aniqlandi [20].

Muvaffaqiyatga ta'sir etuvchi omillar:

VUR darajasi: VURning dastlabki (birlamchi amaliyotdan avvalgi) darajasi statistik jihatdan ahamiyatli omil hisoblanadi. Past darajali VUR uchun tuzalish ko'rsatkichlari yuqoriroq; masalan, bir tadqiqotda III daraja uchun 68,2% va IV daraja uchun 37,5% hollarda tuzalish qayd etilgan [8]. Boshqa tadqiqotda esa I-II daraja uchun 85%, III daraja uchun 67% va IV daraja uchun 33% tuzalish ko'rsatkichi qayd etilgan [4].

Qovuq disfunktsiyasi: Birlamchi operatsiyadan so'ng saqlanib qoluvchi qovuq disfunktsiyasining mavjudligi EK muvaffaqiyati darajasini sezilarli darajada pasaytiradi [6, 18, 19]. Bir tadqiqotda uning mavjudligi dastlabki inyeeksiyaning muvaffaqiyatsizligi uchun yagona statistik ahamiyatga ega omil bo'lib chiqdi. Bunda ikkinchi inyeeksiyani talab qilgan barcha uch siydik nayi ham doimiy qovuq disfunktsiyasi bilan bog'liq edi [6]. Bu EK davolashdan oldin yoki bir vaqtning o'zida qovuq disfunktsiyasini tashxislash va davolashning naqadar muhimligini ko'rsatadi [16].

Birlamchi o'tkazilgan reimplantatsiya usuli: Ba'zi tadqiqotlarning aniqlashicha, dastlabki reimplantatsiya usuli EK muvaffaqiyatiga ta'sir qilishi mumkin (masalan, Lich-Gregoiridan keyin 86% muvaffaqiyat, Koendan keyin esa 67%) [18]. Biroq, boshqa bir tadqiqotda reimplantatsiya texnikasi yoki shilliqosti tunnel yo'nalishiga qarab samaradorlikda sezilarli farq topilmadi [6].

EK, shuningdek, birlamchi VURdan tashqari siydik yo'llarining anomaliyalarida va toraytirilgan reimplantatsiyadan keyin ham kamroq samara beradi [18, 19].

Asoratlari:

EK asoratlari kam uchraydi, siydik nayi obstruksiyasi 0% dan 24% gacha hollarda qayd etilgan [8]. Bir tadqiqotda aniq ko'rsatilishicha, siydik nayi obstruksiyasi kuzatilmagan [8].

3. Qayta operatsiya (ochiq, laparoskopik va robotlashtirilgan)

Reflyuksni bartaraf etuvchi muvaffaqiyatsiz operatsiyalardan (endoskopik yoki reimplantatsiya) so'ng qaytalagan yuqori darajadagi reflyuks yoki obstruksiya uchun eng samarali davolash usuli qayta reimplantatsiya hisoblanadi. Biroq, u chandiq to'qimalarining paydo bo'lishi, ureterovezikal segment anatomiyasining o'zgarishi va anastomoz joyida qon aylanishining buzilishi tufayli asosiy-dastlabki operatsiyaga qaraganda texnik jihatdan murakkabroq hisoblanadi [1, 9, 17].

Samaradorligi:

Qayta operatsiyaning muvaffaqiyat darajasi 70% dan 95% gachani tashkil etadi [7, 8, 10, 12, 23].

Takroriy reimplantatsiya o'tkazilgan 69 nafar bemorning keng tahlili umumiy muvaffaqiyat darajasini obstruksiya bo'yicha 69% va reflyuks bo'yicha 90% ekanligini ko'rsatdi, o'rtacha kuzatuv davomiyligi esa 33 oyni tashkil etdi [7].

Murakkab holatlarda (shu jumladan, qaytalagan reflyuks) robot yordamida laparoskopik siydik nayi reimplantatsiyasining klinik muvaffaqiyat ko'rsatkichlari 94,1%ni tashkil etdi, bu ochiq usuldagi operatsiya natijalariga teng [14].

III. Qayta operatsiya qilish usullari:

Chandiq to'qimasi mavjud bo'lgan qayta operatsiyalarda siydik nayini to'liq qayta mobilizatsiya qilish va implantatsiya qilish intravezikal va ekstravezikal texnikani birgalikda qo'llagan holda amalga oshirish tavsiya etiladi [1, 12].

Siydik naylari va qovuq normal bo'lgan, lekin shilliqosti tunnel uzunligi yetarlicha uzun bo'lmagan hollarda, takroriy Koen reimplantatsiyasi qo'llanilishi mumkin [23].

Kengaygan siydik naylari yoki siydik nayi intravezikal qismining yetarli uzunlikda bo'lmashligi holatlarida, ayniqsa taranglikni kamaytirish va shilliqosti qavatda yetarli uzunlikdagi tunnel hosil qilishni osonlashtirish uchun psoas fiksatsiyasi (psoas hitch manevr) usuli qo'llanilishi mumkin [1, 10, 13].

Siydik naylari sezilarli kengaygan holatlarda (>1 sm) reimplantatsiyani toraytirish (моделирование) bilan amalga oshirish lozim [10, 12, 19]. Biroq, toraytirilgan siydik nayi reimplantatsiyasining o'zi birlamchi jarrohlikdan keyingi qaytalagan reflyuks uchun xavf omili ekanligini esdan chiqarmaslik kerak [19, 21].

Transureteroureterostomiya (TUU) qovuq yoki siydik naylarining keng ko'lamli anomaliyalari tufayli ikkita siydik yo'lidan faqat bittasi reimplantatsiya uchun mos kelsa, qo'llanilishi mumkin [10, 13].

Boari operatsiyasi ko'plab qayta amaliyotlardan so'ng qisqarib qolgan siydik naylari uchun yechim bo'lishi mumkin, bunda qovuq laxtagi (flap) reimplantatsiya uchun uzunlikni oshirish maqsadida ishlatiladi [1].

Qovuq augmentatsiyasi antixolinergik dorilarga javob bermaydigan yomon komplyantli, kichik hajmli qovuqlar uchun ko'rsatma hisoblanadi [10, 13]. Bu juda muhim, chunki qovuqdagi anomaliyalar reimplantatsiya muvaffaqiyatsizligining asosiy sababi bo'lishi mumkin [10].

Robot yordamida laparoskopik ureteral reimplantatsiya (RALUR) murakkab holatlar, jumladan, avvalgi reflyuksga qarshi jarrohlik muvaffaqiyatsiz bo'lgan bemorlar uchun minimal invaziv muqobil usulni taklif etadi [14]. Bu ochiq jarrohlik bilan solishtirganda kasalxonada kamroq muddat qolish hamda muvaffaqiyat darajasi va asoratlar xavfi jihatidan ochiq usuldagi operatsiyalardan kam bo'lmagan natijalarga ega [14].

IV. Qayta operatsiya asoratlari:

Qayta operatsiyalar operatsiyadan keyingi asoratlar xavfini keltirib chiqaradi, jumladan siydik naylari obstruksiyasi (0,3-9,1% hollarda qayd etilgan, bitta tadqiqotda reimplantatsiyadan keyin 6,5% aniqlangan) [11, 17].

Qaytalanuvchi VUR ham rivojlanishi mumkin [5, 8, 17, 23, 26].

Qarama-qarshi tomondagi (kontralateral) VUR bir tomonlama reimplantatsiyadan keyin paydo bo'lishi mumkin, qayd etilgan holatlar 9% dan 25% gachani tashkil etadi [10, 14, 21, 22].

Boshqa asoratlarga operatsiyadan keyingi siydik yo'llari infeksiyalari (SYI) kiritish mumkin. Bir tadqiqotda, 5,9% RALUR holatlarida febril SYI, 7,3% ochiq operatsiyalarda esa isitmasiz SYI kuzatilgan. Shuningdek, bemorlarning 32%ida isitmasiz SYI qayd etilgan [2, 14]. Kamdan-kam

uchraydigan asoratlarga qovuq atrofidagi to'qimalarga suyuqlik sizib chiqishi [12, 13] va inyeksiyadan keyin siydik yo'li teshigining torayishi kiradi [28].

Xulosa

Bolalarda siydik nayi reimplantatsiyasi muvaffaqiyatsiz bo'lganidan so'ng qovuq-siydik nayi reflyuksini davolash murakkab va o'ziga xos masala bo'lib, uning asosiy sabablarini chuqur tushunish va individual davolash yondashuvini talab etadi.

Ushbu bemorlar uchun qaror qabul qilish jarayoni reflyuks darajasi, oldingi jarrohlik turi, qovuq disfunktsiyasining mavjudligi va og'irligi, bemorga xos omillarni hisobga olgan holda individual bo'lishi kerak. Uzoq muddatli kuzatuv zarur, chunki kechikkan qaytalanishlar dastlabki muvaffaqiyatli operatsiyadan bir necha yil o'tgach namoyon bo'lishi mumkin va reflyuks hamda obstruksiya uchun uzoq muddatli nazorat o'tkazish lozim.

Ushbu murakkab bemor bolalar guruhi uchun davolash algoritmlarini takomillashtirish va eng yaxshi amaliyotlarni standartlashtirish maqsadida uzoq muddatli kuzatuv davrlari bilan ko'p markazli prospektiv tadqiqotlar o'tkazish muhim ahamiyatga ega bo'ladi.

REFERENCES | ЧОККИ | ИҚТИБОСЛАР:

1. R. B. Nerli, S. V. Pujar, S. C. Ghagane, M. B. Hiremath, and N. S. Dixit, 'Persistence and appearance of vesicoureteral reflux/obstruction following open reimplantation for vesicoureteral reflux', *J. Sci. Soc.*, vol. 46, no. 3, pp. 90–94, 2019.
2. G. Ceku, M. Petrovski, S. Memeti, N. Hyseni, S. Statovci, and B. Berisha, 'Indications for operation and results from surgical treatment of vesicoureteral reflux', *Arch. Public Health*, vol. 13, no. 2, pp. 110–119, Nov. 2021, doi: 10.3889/aph.2021.6009.
3. M. Perez-Brayfield, A. J. Kirsch, T. W. Hensle, M. A. Koyle, P. Furness, and H. C. Scherz, 'Endoscopic treatment with dextranomer/hyaluronic acid for complex cases of vesicoureteral reflux', *J. Urol.*, vol. 172, no. 4 Pt 2, pp. 1614–1616, Oct. 2004, doi: 10.1097/01.ju.0000139013.00908.1c.
4. D. Kitchens et al., 'Endoscopic Injection of Dextranomer/Hyaluronic Acid Copolymer to Correct Vesicoureteral Reflux Following Failed Ureteroneocystostomy', *J. Urol.*, vol. 176, no. 4 SUPPL., pp. 1861–1863, 2006, doi: 10.1016/S0022-5347(06)00611-2.
5. C. Arroyo, S. F. Carretero, A. G. Fraile, R. M. Valverde, C. T. Ojeda, and D. C. Barbancho, 'Technical challenges of endoscopic treatment for vesicoureteral reflux after Cohen reimplantation', *Actas Urol. Esp. Engl. Ed.*, vol. 43, no. 7, pp. 384–388, 2019.
6. C. Jung et al., 'Subureteral Injection of Dextranomer/Hyaluronic Acid Copolymer for Persistent Vesicoureteral Reflux Following Ureteroneocystostomy', *J. Urol.*, vol. 177, no. 1, pp. 312–315, 2007, doi: 10.1016/j.juro.2006.08.084.
7. H.-G. J. Mesrobian, S. A. Kramer, and P. P. Kelalis, 'Reoperative ureteroneocystostomy: Review of 69 patients', *J. Urol.*, vol. 133, no. 3, pp. 388–390, 1985, doi: 10.1016/S0022-5347(17)48990-7.
8. V. I. Dubrov, S. G. Bondarenko, I. M. Kagantzov, and V. V. Sizonov, 'ENDOSCOPIC CORRECTION OF THE VESICoureTERAL REFLUX AFTER URETERAL REIMPLANTATION IN CHILDREN', *Russ. J. Pediatr. Surg.*, vol. 24, no. 4, pp. 229–233, 2020.
9. R. Kumar and P. Puri, 'Endoscopic correction of vesicoureteric reflux in failed reimplanted ureters', *Eur. Urol.*, vol. 33, no. 1, pp. 98–100, 1998, doi: 10.1159/000019519.
10. J. P. Gearhart and M. P. Leonard, 'Reoperative ureteral reimplantation: strategies for management', *J. Pediatr. Surg.*, vol. 26, no. 1, pp. 58–63, Jan. 1991, doi: 10.1016/0022-3468(91)90427-u.
11. N. Capozza, S. Nappo, and P. Caione, 'Endoscopic treatment of vesicoureteral reflux in the previously reimplanted ureter: technical aspects and results', *Arch. Esp. Urol.*, vol. 61, no. 2, pp. 249–253, Mar. 2008, doi: 10.4321/s0004-06142008000200020.
12. W. H. Hendren, 'Reoperation for the failed ureteral reimplantation', *J. Urol.*, vol. 111, no. 3, pp. 403–411, Mar. 1974, doi: 10.1016/s0022-5347(17)59976-0.

12. W. H. Hendren, 'Reoperative ureteral reimplantation: management of the difficult case', *J. Pediatr. Surg.*, vol. 15, no. 6, pp. 770–786, Dec. 1980, doi: 10.1016/s0022-3468(80)80280-6.
13. M. Arlen, K. M. Broderick, C. Travers, E. A. Smith, J. M. Elmore, and A. J. Kirsch, 'Outcomes of complex robot-assisted extravesical ureteral reimplantation in the pediatric population', *J. Pediatr. Urol.*, vol. 12, no. 3, p. 169.e1–6, June 2016, doi: 10.1016/j.jpuro.2015.11.007.
14. G. Grechi, C. Selli, M. Pecori, and M. Carini, 'Recurrent reflux caused by vesicoureteral fistula', *Urology*, vol. 17, no. 4, pp. 360–361, Apr. 1981, doi: 10.1016/0090-4295(81)90266-1.
15. F. Sharifiaghdas, 'Urodynamic findings of pediatrics with history of failed anti-vesicoureteral surgery', *Am. J. Clin. Exp. Urol.*, vol. 13, no. 3, pp. 225–232, 2025, doi: 10.62347/PXSK4808.
16. D. Guney and T. H. Tiryaki, 'The Prevalence of Redo-Ureteroneocystostomy and Associated Risk Factors in Pediatric Vesicoureteral Reflux Patients Treated with Ureteroneocystostomy', *Urol. J.*, no. 2018: Instant, Aug. 2018, doi: 10.22037/uj.v0i0.4114.
17. Y. Bar-Yosef, M. Castellan, D. Joshi, A. Labbie, and R. Gosalbez, 'Salvage dextranomer-hyaluronic acid copolymer for persistent reflux after ureteral reimplantation: early success rates', *J. Urol.*, vol. 185, no. 6 Suppl, pp. 2531–2534, June 2011, doi: 10.1016/j.juro.2011.01.014.
18. K. C. Hubert et al., 'Clinical outcomes and long-term resolution in patients with persistent vesicoureteral reflux after open ureteral reimplantation', *J. Urol.*, vol. 188, no. 4 Suppl, pp. 1474–1479, Oct. 2012, doi: 10.1016/j.juro.2012.03.048.
19. Y. Aoki, Z. Matsui, A. Sato, Y. Morizawa, S. Iwasa, and H. Satoh, 'CLINICAL EXPERIENCE OF TRANSURETHRAL INJECTION USING DEXTRANOMER-HYALURONIC ACID COPOLYMER (Deflux®) FOR CASES OF SECONDARY VESICoureTERAL REFLUX AFTER URETEROCYSTOSTOMY', *Nihon Hinyokika Gakkai Zasshi Jpn. J. Urol.*, vol. 112, no. 2, pp. 75–80, 2021, doi: 10.5980/jpnjurol.112.75.
20. [M. A. Lavine, F. M. Siddiq, D. J. Cahn, R. E. Caesar, M. A. Koyle, and A. A. Caldamone, 'Vesicoureteral reflux after ureteroneocystostomy: indications for postoperative voiding cystography', *Tech. Urol.*, vol. 7, no. 1, pp. 50–54, Mar. 2001.
21. P. J. Carpentier, P. J. Bettink, W. C. Hop, and F. H. Schröder, 'Reflux--a retrospective study of 100 ureteric reimplantations by the Politano-Leadbetter method and 100 by the Cohen technique', *Br. J. Urol.*, vol. 54, no. 3, pp. 230–233, June 1982, doi: 10.1111/j.1464-410x.1982.tb06965.x.
22. D. Amar, 'Delayed recurrence of reflux after initial success of antireflux operation', *J. Urol.*, vol. 119, no. 1, pp. 131–133, Jan. 1978, doi: 10.1016/s0022-5347(17)57408-x.
23. K. Hjälmås, G. Löhr, T. Tamminen-Möbius, J. Seppänen, H. Olbing, and S. Wikström, 'Surgical results in the International Reflux Study in Children (Europe)', *J. Urol.*, vol. 148, no. 5 Pt 2, pp. 1657–1661, Nov. 1992, doi: 10.1016/s0022-5347(17)36996-3.
24. M. H. Siegelbaum and H. H. Rabinovitch, 'Delayed spontaneous resolution of high grade vesicoureteral reflux after reimplantation', *J. Urol.*, vol. 138, no. 5, pp. 1205–1206, Nov. 1987, doi: 10.1016/s0022-5347(17)43550-6.
25. P. Cloix, M. Dawahra, M. Choukair, J. L. Viguier, and A. Gelet, '[Endoscopic treatment of vesico-ureteral reflux after reimplantation of the ureter (transplants excluded)]', *Progres En Urol. J. Assoc. Francaise Urol. Soc. Francaise Urol.*, vol. 2, no. 1, pp. 66–71, Feb. 1992.
26. D. Aubert, G. Zoupanos, O. Destuynder, and F. Hurez, '"Sting" procedure in the treatment of secondary reflux in children', *Eur. Urol.*, vol. 17, no. 4, pp. 307–309, 1990, doi: 10.1159/000464067.
27. N. Gaschignard, V. Plattner, P. Boullanger, and Y. Heloury, '[Endoscopic treatment of residual vesico-ureteral reflux after reimplantation in children: twelve cases]', *Progres En Urol. J. Assoc. Francaise Urol. Soc. Francaise Urol.*, vol. 7, no. 4, pp. 618–621, Sept. 1997.

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