

od prakti kata za prakti kata

## PRI KAZ NA SLU^AJ NA DETE SO STEKNATA AF AZI JA

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### **Rezime**

Steknati te jazi ~ni naru{ uvawa kaj decata se mani f esti raat na opredelen stepen vo razvojot na jazi kot od tretata do dvanaesettata godi na vozrast. Dodeka jazi ~ni te naru{ uvawa kaj decata me|u prvata i tretata godi na i maat karakteri sti ka kako razvojni , a i kako steknati . Kaj steknata af azija ili di sf azija to~no se znae koga do{ lo do o{ tetuvawe i zo{ to.

Kaj dete so steknata af azija ili di sf azija { to go sledi ranoto o{ tetuvawe na mozokot so pomo{ na pravilno lekuwawe i navremen rehabilitacijski tretman i mirelati vno podobruvawe. Toa e poo~i gledano otkolku kaj vozrasni te.

Ova pobrzo kompletно zakrepnuvawe se dol`i na plasti~nosta na detski ot mozok i na mo`nosta za intrahemi svernata i interhemisferi svernata reorganizacija na jazi ~ni te funkci i vo detstvoto.

**Klu-ni zborovi:** steknat a af azija, ekspresiven govor, receptiven govor, verbalna komunikacija

### **Voved**

Naru{ uvawet o na jazi kot kaj decat a se klasificiraat kako razvojni i steknat i, vo zavisnost od vremet o koga nast anal e (Ludlow, 1980).

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from practice to practice

## REVIEW OF A CASE OF CHILD WITH ACQUIRED APHASIA

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### **Abstract**

Achieved children speech disabilities are manifested at certain level of development of speech from the age of 3 to 12 years. The speech disabilities with children from the age of one to three years have developmental and acquired characteristics. It is well-known when and why the disabilities occur at acquired aphasia or dysphasia.

The child with acquired aphasia or dysphasia has early brain impairments and a relative improvement happens with adequate treatment and prompt rehabilitation treatment. It is more obvious with children than with adults.

This fast and complete rehabilitation happens due to the plastic character of child's brain and the possibilities for intro-hemisphere and inter-hemisphere reorganization of speech functions in childhood.

**Key words:** acquiring aphasia, expressive speech, receptive speech, verbal communication

### **Introduction**

The speech disabilities with children are classified as developmental and acquired ones, depending on time they occurred (Ludlow, 1980).

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Razvojni te jazi ~ki naru{ uvawa se oni e { to nastanal e pred po~etokot na jazi ~ki - ot razvoj (od ra|aweto do prvata godi na), i ako si mpto mi te se javuvaat mnogi podocna. Steknati te jazi ~ki naru{ uvawa kaj decata se pojavuvaat po pojavata na jazi kot od 3-12 godi ni ; dodeka jazi ~ki te naru{ uvawa kaj decata me|u prvata i tretata godi na, i maat karakteristi ka kako razvojni i kako steknati. (1)

Vo steknati te jazi ~ki naru{ uvawa se vbrojuva sekundarnata steknata af azi ja ili di sf azi ja, koja se javuva po lezija na mozokot i toa po tretata godi na od `ivotot, koga bazata na govorot e gotova, koga deteto ve}e po~nal o da se izrazuva so re~eni ci i koga po~nuva da gi upotrebuva si te vidovi zborovi. Kaj steknatata af azi ja ili di sf azi ja to~no se znae koga do{ -1o do o{ tetuvawe i zo{ to. (2)

Ovoj vi d naru{ uvavawe se pojavuva od tretata do desettata godi na od `ivotot, vo vremeto koga deteto intenzi vno go u~i govorot i koga govorot po~nuva da se avtomati zi ra. Avtomatizacija na govorot nastanuva koga vo mozokot se formi raat zoni za razbi rawe i za produkcia na govorot. Vo ni v se skladi raat si te podatoci za glasot, gramati kata, re~eni cata, izgovorot i si te dvi `ewa na govornata muskul atura preku koi jazi ~noto znaewe se pretvoruva vo govor. Kaj decata kaj koi sekundarnata steknata af azi ja ili di sf azi ja nastapi la podocna, razbi raweto mo` e da bide poo{ teteno otkolk ku govorot (senzorna), taka { to govorot mo` e da bi de te~en so dobra mel odi ja i ri tam i so pravi l~na gramati ka, a razbi raweto da bi de namaleno. Dokol ku o{ tetuvaweto nastanal o porano, mo` e da bi de pove}e izrazena motornata komponenta i razbi raweto ne e ili e mo{ ne mal ku o{ teteno. Toga{ vo govorot e o{ tetena re~eni cata, koja se sveduva na imenka, glagol i pokazna zamenka. Artikulacija e te{ ka neve{ ta, se skratuvaat zborovi te i doa|a do zamenata na glasovi te. Ovi e dve relativno ~isti formi se mnogi retki. Naj~esto imame me{ a ni senzomotorni vidovi, kade { to e o{ teteno i razbi raweto i govorot vo pomal

The developmental speech disabilities are those that happened before the beginning of speech development (from birth to the first year of age) although the symptoms occur much later. The acquired speech disabilities with children occur after the appearance of speech at the age of 3 to 12 years; while speech disabilities with children from the age of one to three years are characterized as developmental and acquired ones. (1) The acquired speech disabilities include secondary acquired aphasia or dysphasia that occurs after brain lesia after the third year of age when the speech basis is complete, when the children start expressing themselves with clauses and when they start using all kind of words. It is well-known when and why the disabilities occurred at acquired aphasia or dysphasia. (2)

This kind of disabilities happens from the age of 3 to 10 years, the time when children intensively learn the language and when the language becomes automatic. The automatic language appears when zones for understanding and speech production are formed in the brain. They store all data for voice, grammar, clauses, pronunciation and all movements of speech muscles that enable the speech knowledge to transfer into speech. Children with later secondary acquired aphasia or dysphasia occurred later, understanding can be more general than speech (sensory) and speech can be fluent with good melody and rhythm, correct grammar and with normal understanding. If the impairment occurred earlier, the motor component can be more explicit, while understanding is not or slightly impaired. In that case, the clause is damaged and it is reduced to noun, verb and demonstrative pronoun. The articulation is heavy, unskilled, the words are shortened and replacement of voices occurs. These two relatively clear forms are very rare. In most cases, we have a mixture of senso-motor types where the damage occurs in understanding and language at less

i l i pogol em stepen. Zabel e` ani se i amnesti~ki vidovi { to se manif estiraat kako zaboravawe na zborovite, i toa gl avno na i menki te, dodeka razbi raweto i si te drugi modal i teti na govorot se vo red. Deteto }e ja op{ uva f unkci jata na predmetot-zo{ to sl u` i, a dodeka za i meto ne mo` e da se seti. Osven razbi raweto i govorot, ovie deca imaat te{ koti i so ~i taweto, pi { uwaweto i smetaweto. (3)

### **Prikaz na slu~ajot**

Ma{ ko dete B. T. rodeno vo 1990 godina, upaten e na lekuvawe na Klinika za Nevrologija.

### **Familiijarna anamneza**

B.T. e vtoro dete od vtorata uredna i redovno kontrolirana bremenost. Peri i posnatal en peri od ureden. Dosega deteto psi homotorno dobro se razvivalo, ne bol edoval o od nekoi poseri ozni болести, osven od respi ratorni inf ekci i koi bil e ambulantski treti rani.

**Status:** Deteto e somnolentno, af ebril no, eukogdi~no, eufori~no. OMG i PMT sredno i zrazeni, ko`ata bleda so za~uvan turgor i elasti ci tet. Glava so normal na konf i guracija. Pulmo et cor so uredeni naod. Ekstremi teti pravilni, so desnostrana hemi pareza. Babinski obostrano poziti ven, teti vni te ref leksi se zajaknati. Abdominalni ref leksi atenuirani i vidljiv desnostran facialis.

Sega{ nata bol est po~nal a dva dena pred priem koga deteto po~nalo da se `ali na gl avobolki od levata strana, za sledni ot den da ja izgubi svesta, so pojava na f iksi ran uko~en pogled i uko~eni ekstremi teti so ni vno tresewe.

EEG: 1: Ilevostran { il ec bran f okus.

2: osnovna aktivnost nestabilna so i izoli ran del ta f okus i l evostrano.

KTM: nehomogena ekspanzi vna tvorba vo levata cerebralna hemisfera. MR -angi ograf i ja na karoti di te i na mozokot.

or larger level. The amnesic types are indicated, manifested with forgetting words, mainly nouns, while understanding and all other speech modalities are correct. Children will describe the function of the object – its purpose, but cannot remember the name. Besides understanding and speech, these children have difficulties with reading, writing and calculating. (3)

### **Review of the case**

Boy B.T. born in 1990, sent for treatment at Neurology Clinic .

### **Family anamnesis**

B.T. is the second child of the second, regular and controlled pregnancy. Perinatal and postnatal periods are regular. The child has good psycho-motor development, he was not ill of any serious diseases except some respiratory infections, treated at First Aid Station.

**Status:** The child is somnolent, afebrile, eucogdic, euphoric. OMG and PMT are mean expressed, pale skin with preserved turgor and elasticity. The head is with normal configuration. Pulmo et cor with regular finding. Correct extremities, with chemi-paresis on the right side. Babinski positive on both sides, tendon reflexes strengthened. The abdominal reflexes attenuated and noticed facialis on the right side.

The present illness started two days before the admission when the child started to complain of headaches in the left side. The next day he lost his conscious, with fixed and stiff vision, stiff and shaking extremities.

EEG: 1: Left sided pick wave focus.

2: Basic activity unstable with isolated left sided delta focus.

KTM: non-homogeneous and expansive appearance in left cerebral hemisphere. MR-angiography of carotides and brain.

MR-naodot zboruva za tromboti ~ni masi vo levata arterija, cerebri anterior i media.

Najverojatno se raboti za cel osna okluzija na spomenati ot segment, koja sega postepeno se rekonal i zi ra.

Po priemot deteto e postaveno na anti edematozna terapija. Sostojbata na deteto postepeno se podobruva, muskularnata sila se zajaknuva. Parezata na facialis postepeno se povlekluva, a u{ te imam afazija (gubewe na govorot) i desnostrana hemipareza.

Po tretmanot koga sostojbata se podobrava, deteto e upaten na fizikalna terapija i logopedski tretman.

### **Logopedski tretman - status**

Na logopedski ot tretman deteto doa|a poeden mesec od pojave na prvi te si mptomi.

Oralnata praksi ja poradi del umnata vidlivost na parezata na n. facialis e slaba.

**Artikulacija:** Poedni ne~no glasovi te gi izgovara so ~esto zamenuvawe na glasovi te { to se sli~ni po zvu~nost ili po mesto na formi rawe. Artikulacija e te{ ka i neve{ ta.

**Povtoruvawe:** Povtoruva poedi ne~ni slogovi; ne e vo sostojba da povtori ni dvo-slo`en zbor. Pri povtoruvawe na zborovi te doa|a do i sprevrtuvawe na slogovi te vo zborot ili na zamenuvawe i nediskriminirani rawe na glasovite sli~ni po zvu~nost.

**^itawe:** Bukvi te gi prepoznava, ne e vo sostojba da gi povrze vo zbor. Prvi ot slog vo zborot go ~ita pravilno, a ve}e vtori - ot go zamenuva so slog sli~en po izgovor so prvi ot.

**Pi{ uvawe:** Poedi ne~ni slogovi e vo sostojba da gi napi{ e, dodeka niza od slogovi ne mo`e da gi napi{ e. Primer: Na barawe da napi{ e "Nata{ a#pi{ uva "Natata#".

**Nabrojuvawe:** Vo sostojba e da izbroi do deset, a denovi te vo nedelata ne mo`e da gi nabroi.

**Razbirawe:** Gi razbirira postaveni te pra-

MR-finding states trombone masses in the left artery, cerebral anterior and media.

The most probably, this is the case of complete occlusion of the mentioned segment, which now gradually reconalizes.

After the admission, the child was under anti-edematosity therapy. The child's condition gradually improves and the muscle structure strengthens. The paresis facialis gradually retreats with still present aphasia (lost of speech) and right-sided hemiparesis.

After the treatment, when the condition improves, the child is sent to physical therapy and speech therapeutics.

### **Speech Therapeutics – Status**

The child comes for speech therapeutics after one month since the first symptoms occurred.

Oral practice, due to partial presence of paresis on n. facialis, is weak.

**Articulation:** He pronounces separate voices with often replacement of voices similar in sound or place of their shaping. The articulation is heavy and clumsy.

**Repetition:** He repeats single syllables; he is not able to repeat two-syllable words. While repetition of words, the syllables in the word become mixed or replaced and non-discriminated of voices with similar sounds.

**Reading:** He recognizes the letters but is unable to compose the word. He correctly reads the first syllable in the word and replaces the second syllable with a syllable similar to the first one.

**Writing:** He is able to write down separate syllables and is unable to write down line of syllables.

Example: Asked to write down "Natasha", he writes "Natata".

**Listing:** He is able to count to ten, but unable to count the days of the week.

**Understanding:** He understands the questions.

{ awa. Recepti vnata komponenta na govorot ne e o{ tetena.

Na tretman doa|a sekojdnevno. Logopedski ot tretman go po~nuvame so ve` bi za podobruvawe na motori kata na govorni te organi { to gi i zveduvame pred ogl edal o. Potoa ve` bite gi pro{ i ruvame so ve` bave na poedi ne~ni te glasovi vo sl ogovi so samoglaski vo razni pozici i (inicijalna, medialna, finalna) vkl u~uvame i ve` bi za di skri mi nacija na glasovi te. Vedna{ po~nuvame so preve` buvawe na rakata, so cel da postigneme introhemisferna i interhemisferna reorganizacija na jazi~ki-te funkcii. Sostojbata na pacientot od den-naden se podobruva. Oralnata praksi ja, kako rezultat na podobrenata motori ka na govorni te organi, stanuva s{ podobra. Artikulacijata stanuva s{ podobra i pol esna.

Po tretmanot od okol u dva meseca pacientot e vo sostoja da povtori i pove}e slo`ni zborovi. Artikulacijata e s{ podobra i posigurna. Grafomotorikata e postabilna. Vo sostoja da prepi{ e i podol g tekst. Diktat u{ te ne e vo sostoja da pi{ uva. Pi{ uvaweto so desnata raka mu e pol esna otkolku so levata.

**^itawe:** Vo sostoja da pro~ita pokusi zborovi, a podolgi te mo`e da gi pro~ita bukva po bukva.

**Spontan govor:** Vo govorot spontano ne se vkl u~uva. Na ve` bite e miren i ne postavuva pra{ awa. So rodi tel i te vo doma{ na sredi na komuni ci ra, no re~eni cata mu e nekompletetna i gramati~ki nepravilna.

**Dijalog** Odgovara na postavenite pra{ awa kuso, so kusi re~eni ci, gramati~ki nepravilni. Govorot e bradilalici~en so bavno tempo i melaholi~en.

Po tretmanot po~nuva da doa|a tri pati nedelno. Ve` bite se svrteni kon komplete~ti rawe na re~eni cata. Po tretmanot od 4 meseci, govorot s{ pove}e se podobruva.

Povtoruvaweto na sl ogovi i zborovi e dobro i bez artikulatori gre{ ki. Vo sostoja da povtori i prosta re~eni ca.

The receptive component of the speech is not damaged.

He regularly comes for treatment. We start the speech therapeutics with exercises for motor improvement of speech organs in front of the mirror. Later, we broadened the exercises with separate voices in syllables consisted of vowels in various positions (initial, medial, final ones), as well as exercises for voice discrimination. We immediately start with repeated exercise of hand in order to achieve intro-hemisphere and inter-hemisphere reorganization of speech functions. The patient's condition improves day by day. The oral practice, as a result of improved motor of speech organ becomes better. The articulation is better and easier.

After 2-month treatment, the patient is able to repeat words with more syllables. The articulation is better and surer. The graph-motor is more stable. He is able to rewrite longer text. He is unable to write a dictation. He uses right hand more than left for writing.

**Reading:** He is able to read shorter words and reads longer words letter by letter.

**Spontaneous speech:** His speech is not spontaneous. He is quiet at exercises and does not put questions. He communicates with parents at home, but his sentence is incomplete and grammatically incorrect.

**Dialogue:** He briefly replies all questions with short sentences, but grammatically incorrect. His speech is bradilalitic with slow tempo and melancholic.

He comes for treatment three times a week. The exercises are focused on sentence completion.

After a 4-month treatment, his speech is obviously improved.

The repetition of syllables and words is better and without mistakes in the articulation. He is able to repeat a simple sentence.

**Dijalog** Na pravilni odgovori, no re~eni cata e kusa sostavena od imenka, glagol i ponekoj predlog.

**Spontan govor:** U{ te ima te{ koti i vo spontani ot govor. Bradi lal i jata ne e tolku upadli i va.

**Opis na slika:** Pri opis na slika gi nabrojuva predmetite { to gi gleda. Na potpravilni awa, so cel da mu se pomogne, dava pocel osen odgovor.

### **Logopedski tretman**

Logopedski ot tretman go izveduvame so pomo{ na ve` bi za:

- oralna praksi,
- podobravane na artikulacijska,
- za diskriminacija na glasovi te,
- zborovi so povtaruvave na dadena slika,
- imenuvave na sliki ~ki,
- boi, prepi{ uvave kus tekst (doma), leva raka,
- forme rawe kusa re~eni ca,
- dijalog,
- opis na slika.

### **Zaklju~ok**

Od dadeni ot prikaz na dete so steknata afazija ili disfazija { to go sledi ranoto o{ tetuvave na mozokot, so pomo{ na pravilno lekuvave i navremen rehabilitacijski tretman, ima relativno podobravave, koe e pogledno otkolku kaj vozrasnite.

Ova pobrzo kompletne oporavuvave se dol`i na plasti~nosta na detski ot mozok i na mo`nosta na intrahemisfernata i interhemisfernata reorganizacija na jazi~ki te funkciji vo detstvoto.

Deteto prodol`uva vo prvo oddelenie i ne povtorava: so pomo{ na u~itelkata go nadomestuva i zgubeni ot nastaven materijal.

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**Dialogue:** He gives correct answers, but the sentence is short and composed of noun, verb and some preposition.

**Spontaneous speech:** He still has difficulties in spontaneous speech. The bradilalia is not so noticeable.

**Description of pictures:** While describing pictures, he counts the objects he sees. He gives complete answer when being asked in order to help him.

### **Speech therapeutics**

We carry out speech therapeutics with exercises for:

- oral practice,
- articulation improvement,
- voice discrimination,
- words with repetitions on given picture,
- naming flash cards,
- colors, rewriting of short text (at home), left hand,
- forming short sentence,
- dialogue,
- description of a picture.

### **Conclusion**

The given review of a child with acquired aphasia or dysphasia, which resulted in brain damage in early childhood, assisted by correct treatment and prompt rehabilitation treatment, shows relative improvement that is more obvious than with adults.

This fast and complete rehabilitation occurs due to the plastic character of child's brain and the possibilities for intro-hemisphere and inter-hemisphere reorganization of speech functions in childhood.

The child keeps on attending the first grade of elementary school and does not repeat it: he compensates the lost teaching material assisted by his teacher.

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