

INTENSIVE SPEECH THERAPY AND CLEFT PALATE: CASE REPORT

Terapia fonoaudiológica intensiva e fissura de palato: relato de caso

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ABSTRACT

Intensive therapy has been reported in literature as an option module's initial conventional therapy, because as the patient will realize improvements in his speech, replaced by greater involvement and commitment to therapy. This article reports the experience with a case of intensive speech therapy, comparing the performance in speech production of a patient of 25 years operated cleft palate before and after intensive speech therapy. The service was conducted from July to August, 2009. Had the duration of 30 minutes daily, with the first service was held history and speech and last only a new evaluation, and 18 sessions of intensive care, totaling 20 sessions. Was videotaped sample of spontaneous speech, repetition of a list of words and phrases, and finally, the therapeutic tests in order to determine which phonemes the patient was easier to produce, contributing to development of treatment planning. It was possible to automate setting a phoneme and another of the six worked during the 18 sessions of intensive care. This prompted the patient to continue the process by means of conventional therapy.

KEYWORDS: Cleft Palate; Speech Therapy; Velopharyngeal Insufficiency; Speech Disorders; Adult

■ INTRODUCTION

Cleft palate (CP) individuals or with other craniofacial alterations may present articulatory disorders related to a variety of causes, as palatal fistula, malocclusion, fluctuating or chronic hearing loss and amygdala hypertrophy; causes which are not limited to the velopharyngeal dysfunction (VPD).

Disturbs can be of development, compensatory or obligatory. Development disturbs are those which may be present in any child and do not present direct relation to cleft. Articulatory compensatory disturbs (ACD) are prevent from trying to compensate the deficient velopharyngeal port, at initial phases of language acquisition, seeking other spots to produce plosives and fricatives sounds, in an attempt to block the phonatory air flow. The ACDs are classified as: glottal stroke, pharyngeal fricative, mid-dorsum palate stop, pharyngeal plosive, posterior nasal fricative and velar fricative¹.

Obligatory disturbs in VPD, resulting from structural alteration, comprehend the hypernasality, the nasal air emission, low intraoral air pressure and nasal snort².

The lack in the articulatory development of the velopharyngeal structures, resulting from the residual velopharyngeal dysfunction (after surgical intervention) has, as the mains effects, the creation of a intraoral pressure in insufficient levels for the production of plosives consonants, fricatives and affricates, associated to nasal emission of the breathing air³.

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Thus, the intelligibility level of the cleft speakers will be determined by the way several structures of the vocal tract react to the VPD, not by its level⁴.

The speech assessment, in this cases, consists in the observation of the orofacial structures (lips, tongue, palate, uvula, palatal tonsils and pharynx) as the morphologic and functional aspect, by means an extra-oral and intra-oral inspection. Besides, it should be performed perceptive-hearing analysis of speech, by the repetition of a word list and phrases and spontaneous speech samples, aiming to verify the articulation, resonance, nasal air emission, low pressure and the intelligibility level of speech⁵. Complementary test also should be performed to confirm the results of the perceptive-hearing analysis as the nasal air emission test, using the mirror of Glatzel during blow, emission of the sounds /s/, /f/, /ʃ/, /i/ and /u/ extended and isolated and some oral words; and the hypernasality test, by the sustained vowel emission /i/ and /u/ and oral words, with or without nostrils occlusion⁵.

The evaluation of the velopharyngeal function is based on the scores of hypernasality, nasal air scape and presence or not of the compensatory articulations obtained during the performance of the speech perceptive-hearing assessment. The velopharyngeal function can be classified by a three point scale: (1) correspondent to the proper velopharyngeal function, (2) related to the marginal velopharyngeal function and (3) correspondent to the improper velopharyngeal function².

The daily therapy, due to its proximity and frequency of the appointments, enables the gradual observation of patients' speech modifications, correcting them whenever it is necessary and helping the patients in the perception of their difficulties and the correct way to pronounce the tongue sounds. The intense therapy may be an initial module to the conventional therapy, since as the patient realizes the improvement in his speech, begins to have higher involvement and compromising to the therapy⁶.

In the state of Rondônia studies are narrow about the cleft lip palate. But, aiming to verify the number of speech therapists who treat cleft lip palate individuals in Rondônia and the therapeutic approach in these individuals, a study interviewed 55 speech therapists, using a questionnaire. The most of participants of the study treated cleft lip palate individuals and the therapeutic approach referred by the professionals is based on the oral-motor area⁷.

The aim of this study was to describe and to compare the speech assessment results of an individual cleft palate operated before and after intensive therapy.

■ CASE INTRODUCTION

This study initiated after the approval of the Committee for Ethics in Research, under process nº 387/09, following the recommendations of the Resolution 196/96 of the National Health Council.

The subject participant on the research was informed about the study development as from the reading of the Information to the Research Subject Letter and by his authorization, signing the Consent form.

The study was developing during July to August 2009, 30 minutes long each session, being 18 sessions of intensive therapy, with Monday to Friday appointments in the morning, totaling nine hours of therapeutic intervention.

In the first appointment was performed the anamnesis and the speech assessment and in the last one just a reassessment, summing up 20 sessions.

The case researched was from a 25 year old woman living in Porto Velho (Rondônia), who oral language was acquired during the period in which the palate fistula post incisive foreman was opened, what contributed to the development of the ACDs. The surgical intervention happened only when she was 10 years old. The speech therapy follow up in private clinic was developed for two months after surgery. After a 14 years recess, in the first semester of 2009, the patient came back to the treatment in other clinic, remaining for four months with twice a week appointments, 30 minutes each session. The patient informed that she performed the exercises at home, conformingly therapist orientation, reporting that she considered the weekly therapy time too short and this demotivated her, since it was not realized an improvement in her speech.

The patient had awareness that she needed to improve, mainly because presented hypernasal voice, with air scape, difficultness to say her name, to blow, to emit a few sounds, thus emphasizing that only her relatives considered her speech normal. Although, she had conscience of the difficultness in communicate with people who had no daily contact. Sometimes she felt embarrassed with moments of sadness and loneliness; however, these situations never brought considerable harm in her scholar, social or work life. Her expectation, regarding the intensive therapy, was that she could at least learn to say her name, the word "Jesus" and to blow.

When proposed the intensive therapy, the patient presented herself very enthusiastic, reporting satisfaction in knowing that she would have a daily follow up, and needed the frequently practice exercises due to the demands in the fluency of the phonemes. In case of the productions are not being performed properly, on the next day appointment it would be

corrected, and when it is necessary, the therapist would give other tips to make the process easier.

On the first day of consultation was performed the anamnesis and speech assessment by the analysis of the videotaping of speech spontaneous, repetition of a word list and phrases with phonemes oral occlusive and fricatives⁵. At last, it was performed therapeutic proofs. It was selected two plosives and two fricative phonemes using tips visual (mirror and air paddle), hearing (garrote) and tactile-kinesthetic (hand dorsum to feel the air passing through the mouth), aiming to verify which phonemes the patient presented more easiness in produce, contributing to create the therapeutic planning.

On the last day, it was performed only the speech reassessment.

The assessments, before and after the therapy, and the therapy were performed by the same professional.

In the speech therapy was defined that the first 15 minutes would be to stimulate the correct pronounce of the phonemes by the awareness and setting of an articulatory spot; and the 15 minutes left, for guidance the air flow to the oral cavity with tips tactile-kinesthetic, visual, hearing, using host, paddle, scape-scope, birthday candy wrapping, air paddle and garrote⁵.

First there was stimulation of isolated sound production, in syllables, words, phrases and texts, being possible to go to the next stage only when the therapist observed significant improvement.

The words, phrases and texts used were chosen and adapted, when necessary, so the contained, besides the target phoneme, only sounds correctly

pronounced by the patient. It was initiated with the stimulation of the phonemes alveolar fricatives and velar occlusive (/s/, /z/, /k/ and /g/), from anterior to posterior, respecting the difficultness and need of the patient, for example, exploring her daily use words, her name and the name of her relatives, working them simultaneously until they were proper to the syllable level, so it could be introduced two lingua-dentals occlusive phonemes (/t/ and /d/).

The patient was guided to practice at home, daily 15 minutes the phonemes approached in the therapy as from the seventieth session.

After the end of the study the patient continued the therapy twice a week, in the same institution, followed up by one of the researchers.

■ RESULTS

In Figure 1 is verified the results of the speech assessment before and after the intensive therapy. There was decrease on the ACDs and on the nasal air emission; the moderate hypernasality and the speech intelligibility harm on spontaneous conversation remained, but in disyllable words the hypernasality diminish. In spite of that, the velopharyngeal function⁶ classification continued improper after the therapy.

In Figure 2 there are the results of words and phrases repetition before and after the intensive therapy. It was verified an improvement on the fluency of the phonemes /s/ and /z/, diminish on the number of phonemes with nasal air emission and of facial movements associated.

	HEARING-PERCEPTIVE OF SPEECH			NASAL AIR EMISSION TEST					HYPERNASALITY TEST	
	Articulation	Resonance	Intelligibility	Words	Blow	/f/ and /ʃ/	/s/	/l/ and /u/	Oral Words	/i/ and /u/
Before	ACDs present in /s/, /z/, /k/, /g/, /t/ and /d/	moderate Hypernasal	moderately damaged	6/10	Absent	Unsystematic	Present	Present	6/10	Positive
After	ACDs absent in /s/, unsystematic in /z/	moderate Hypernasal	moderately damaged	0/10	Absent	Absent	Absent	Discreet (end of the emission)	4/10	Discreet

Legend: ACDs= articulatory compensatory disturb

Figure 1 – Comparing of assessments results before and after intensive therapy, regarding the hearing-perceptive of speech analysis, nasal air emission test and hypernasality test

INITIAL ASSESSMENT	FINAL ASSESSMENT
Pharyngeal fricative and low intra-oral pressure /s/ and /z/	automatization /s/ and fixation /z/
Mid-dorsum palatal stop /t/ and /d/	Mid-dorsum palatal stop /t/ and /d/
Pharyngeal plosive /k/ and /g/	Pharyngeal plosive /k/ e /g/
Nasal air scape in syllables, Words and phrases with /s/, /z/, /t/, /d/, /k/ and /g/	Nasal air scape in syllables, Words and phrases with /t/, /d/, /k/ and /g/
Glabella movement Excessive contraction of the mental	absent movement /s/ unsystematic movements /z/

Figure 2 – Comparing results of words and phrases repetition before and after intensive therapy

■ DISCUSSION

The speech treatment in operated patients of CLP requires knowledge and utilization of proper techniques to eliminate the ACDs that are frequently present and do not make the treatment last too long.

In the state of Rondônia the interviewed speech therapists report they already treat cleft lip palate individuals and the approach is based on oral-motor area. In this state of Brazil there are professionals to enable the action of a team in all the speech rehabilitation stages of the patients⁷.

The intensive process of the therapeutic strategies and the direct participation of responsible relatives during the therapy are essential to facilitate the appropriation of a new speech module. Thus, with daily intensive therapy programs and correct conducts of strategies come about greater results to the patient. That is why two sessions a week, even that the strategies are proper, may be insufficient⁸.

In the present study, emotional factors as family issues and constantly colds interfered on the therapeutic evolution, since the patient, in some appointments, presented low self-esteem, fatigue and pneumo phonoarticulatory incoordination. It was realized decrease of the patient motivation level in the moment of performing the exercises at home, a few times also during the appointment and consequently on the intervention results.

Young adults feel higher difficultness to an interpersonal relationship. These patients may present psychological problems as depression, ease irritability, frustration, low self-esteem, loneliness and suicide, but depending on the personality of the patient and the acceptance of the family, may do not present psychological disturbs⁹.

In the introduction of the correct articulatory spots of the phonemes, it was followed the stages of production of the isolated phoneme, in syllabic context, words, phrases, readings, until spontaneous speech using tips visual, tactile-kinesthetic, according suggested on literature⁵.

The patient reported that the tips facilitated to observe her errors, emphasizing to have gradual difficultness as going to the next stage, mainly in reading, when realized that would be necessary to perform the punctuation rules and comprehension of the read text.

It would be interesting that other studies concern to review the frequency on sessions of speech therapy of adult individuals carrying cleft lip palate that, seeking treatment, report be seen by the society as bad speakers. It is suggested to perform the intensive therapy on the first month, 30 minutes sessions and only after that go to weekly therapy, as proposed in different study⁶.

Furthermore, it is suggested to studies, as an important procedure to ensure no manipulation on results, that the speech assessments pre and post be performed by different evaluator and/or to be added audio and/or video recording, although, such procedures were not considered in this research.

Based on the results of this study, there is the need of performing further researches outlining therapeutic results using the intensive therapy in different ages to show whether the age factor interfere in this progress.

■ CONCLUSION/FINAL COMMENTS

It was possible the automatization of a phoneme and settling one of the six phonemes worked during the 18 sessions of intensive therapy, that is, benefit results in a short term. This motivated the patient to continuing the process by conventional therapy. Regarding the patient has already performed two attempts of progress by means of weekly interventions without considerable results, reporting she did not practice the exercises due to the large space between the sessions and lack of daily effort, elements there are not present in intensive therapy, demonstrating its effectiveness as initial module of treatment in individuals with CLP.

RESUMO

A terapia intensiva tem sido relatada na literatura como uma opção de módulo inicial da terapia convencional, pois a medida que o paciente vai percebendo melhoras em sua fala, passa a ter maior envolvimento e comprometimento com a terapia. Este artigo relata a experiência com um caso de atendimento fonoaudiológico intensivo, comparando o desempenho na produção da fala de uma paciente de 25 anos, operada de fissura palatina, antes e após a terapia fonoaudiológica intensiva. O atendimento foi realizado no período de julho a agosto de 2009, com duração de 30 minutos cada sessão, sendo 18 sessões de terapia intensiva, com encontros diários de segunda a sexta pela manhã, totalizando 9 horas de intervenção terapêutica. No primeiro atendimento foi realizada anamnese e avaliação fonoaudiológica e no último apenas a reavaliação, totalizando 20 sessões. Foi gravada em vídeo uma amostra de fala espontânea, repetição de uma lista de palavras e frases e, por fim, realizadas as provas terapêuticas com o objetivo de verificar com quais fonemas a paciente apresentava maior facilidade na produção, contribuindo para elaboração do planejamento terapêutico. Foi possível a automatização de um fonema e fixação de outro dos seis trabalhados durante as 18 sessões de terapia intensiva. Isto motivou a paciente para dar continuidade ao processo por meio de terapia convencional.

DESCRIPTORIOS: Fissura Palatina; Fonoterapia; Insuficiência Velofaríngea; Distúrbios da Fala; Adulto

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