

UNIVERSIDADE DE SÃO PAULO
FACULDADE DE ODONTOLOGIA DE RIBEIRÃO PRETO
CLÍNICA DE PACIENTES ESPECIAIS

Atendimento Odontológico da Criança com

PARALASIA CEREBRAL

no Consultório

Carolina Paes Torres Mantovani

2020

Paralisia Cerebral (PC)

O termo é usado para definir qualquer
desordem neuromotora permanente
não progressiva
causa por danos no cérebro
ainda imaturo ou em desenvolvimento

- Desordem motora mais comum da infância
- 1 a 2:1.000 nascidos vivo
- Maior risco:
 - bebês prematuros
 - crianças de baixo peso ao nascimento



GENÉTICAS

5 %



PRÉ-NATAIS

10 -15 %

INFECÇÕES VIRAIS

(toxoplasmose, rubéola)

ANOXIA INTRAUTERINA

(decorrentes complicações maternas)

SUBSTÂNCIAS TÓXICAS

(álcool, radiação, cocaína)

CAUSAS/FATORES DE RISCO

PERINATAIS

65 -75 %

ANOXIA CEREBRAL

PREMATURIDADE

TRAUMATISMO CEREBRAL

(hemorragia)

HIPERBILIRRUBINEMIA



PÓS-NATAIS

10 -15 %

INFECÇÕES SNC

(hidrocefalia, meningites e encefalites)

TRAUMATISMO CRÂNIO-ENCEFÁLICO

HIPÓXIA CEREBRAL GRAVE

(quase afogamento, convulsões prolongadas e parada cardíaca)

CLASSIFICAÇÃO

TÔNUS MUSCULAR
TIPO DE DESORDEM DO MOVIMENTO



ESPÁSTICA

Rigidez e fraqueza mm
Se arrastam
Marcha em tesoura

ATÁXICA

Coordenação motora ruim
Marcha cambaleante

ATETÓIDE

Movimentos involuntários
Inteligência normal

MISTA



CLASSIFICAÇÃO

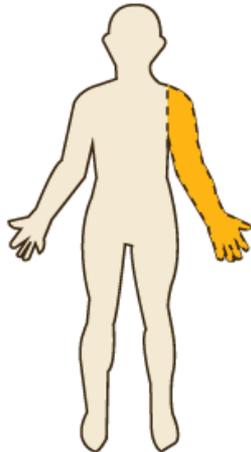
Disfunção Neuromuscular
Envolvimento Anatômico

CEREBRAL PALSY AWARENESS

TYPES

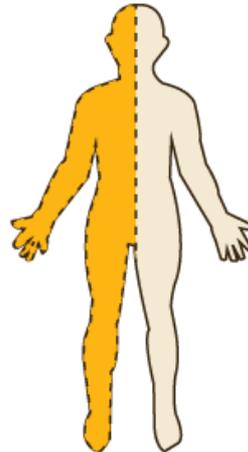
CEREBRAL PALSY

Monoplegia



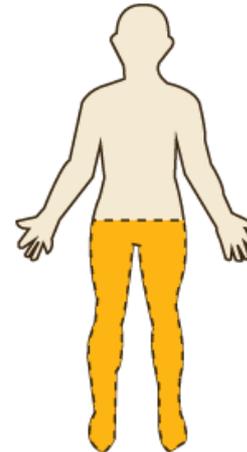
Affects one limb, usually an arm.

Hemiplegia



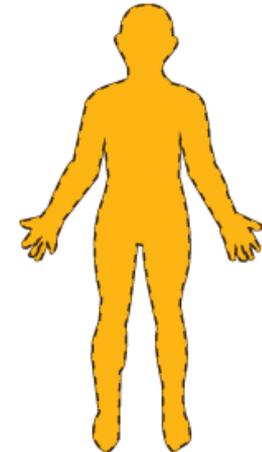
Affects one side of the body, including arm, leg, and trunk.

Diplegia



Affects symmetrical parts of the body (legs or arms).

Quadriplegia



Affects all four limbs

March is National Cerebral Palsy Awareness Month

DIAGNÓSTICO

- Dificuldade de sucção, tônus muscular diminuído, alterações postura e atraso firmar cabeça, sorrir e rolar
- História clínica completa e exame neurológico (pesquisa REFLEXOS PRIMITIVOS)
- Persistência além 6 meses - indicar presença lesão cerebral

Reflexo
tônico do
pescoço



Reflexo de
preensão



Reflexo
de
marcha
automática



Reflexo de
gatinhar



- Neuroimagem
- Tomografia computadorizada / Ressonância magnética)

DESORDENS ASSOCIADAS

O termo PARALISIA CEREBRAL implica alterações do MOVIMENTO
Presença de OUTROS DISTÚRBIOS deve ser investigada
SUCESSO tratamento depende abordagem correta problemas associados

- Deficiência Mental
- Epilepsia
- **Disfagia**
- Alterações visuais
- Deficiência auditiva
- **Desordens de sucção, mastigação**
- Constipação intestinal
- Distúrbios das vias aéreas
- **Refluxo gastroesofágico**
- **Padrão de respiração bucal**
- **Xerostomia**
- **Bruxismo**



TRATAMENTO



- PC não tem cura
- Tratamento envolve PROFISSIONAIS (áreas) e a FAMÍLIA
- Efeitos podem ser minimizados
- Objetivo principal - promover INDEPENDÊNCIA
- Bom relacionamento afetivo pais-criança favorece
- Atividades físicas (hidroterapia, natação, equitação, etc)



TRATAMENTO

TREINAMENTO NAS ATIVIDADES DE VIDA DIÁRIA

AVDs

estimular potencial individual de realização das diversas atividades





TRATAMENTO

TREINAMENTO NAS ATIVIDADES DE VIDA DIÁRIA AVDs

estimular potencial individual de realização das diversas atividades



Comunicação



- Muitas crianças com PC - inteligência normal, podem apresentar dificuldades de movimento tão graves que prejudicam capacidade para falar, escrever e andar
- DISARTRIA
- Comunicação por gestos, expressões faciais e vocalizações
- Engenharia de reabilitação - computador como recurso para o desenvolvimento de equipamentos, dispositivos que viabilizam comunicação

> Eur J Paediatr Neurol, 17 (6), 568-74 Nov 2013

Communication Ability in Cerebral Palsy: A Study From the CP Register of Western Sweden

Kate Himmelmann ¹, Karin Lindh, Mary Jo Cooley Hidecker

Affiliations + expand
PMID: 23672835 DOI: 10.1016/j.ejpn.2013.04.005

> Res Dev Disabil, 34 (9), 2694-700 Sep 2013

Assistive Technology for Promoting Choice Behaviors in Three Children With Cerebral Palsy and Severe Communication Impairments

Fabrizio Stasolla ¹, Alessandro O Caffò, Luciana Picucci, Andrea Bosco

> Disabil Rehabil Assist Technol, 14 (5), 489-502 Jul 2019

Assistive Technology for Promoting Choice Behaviors of Children With Cerebral Palsy: Ten-Year Evaluation

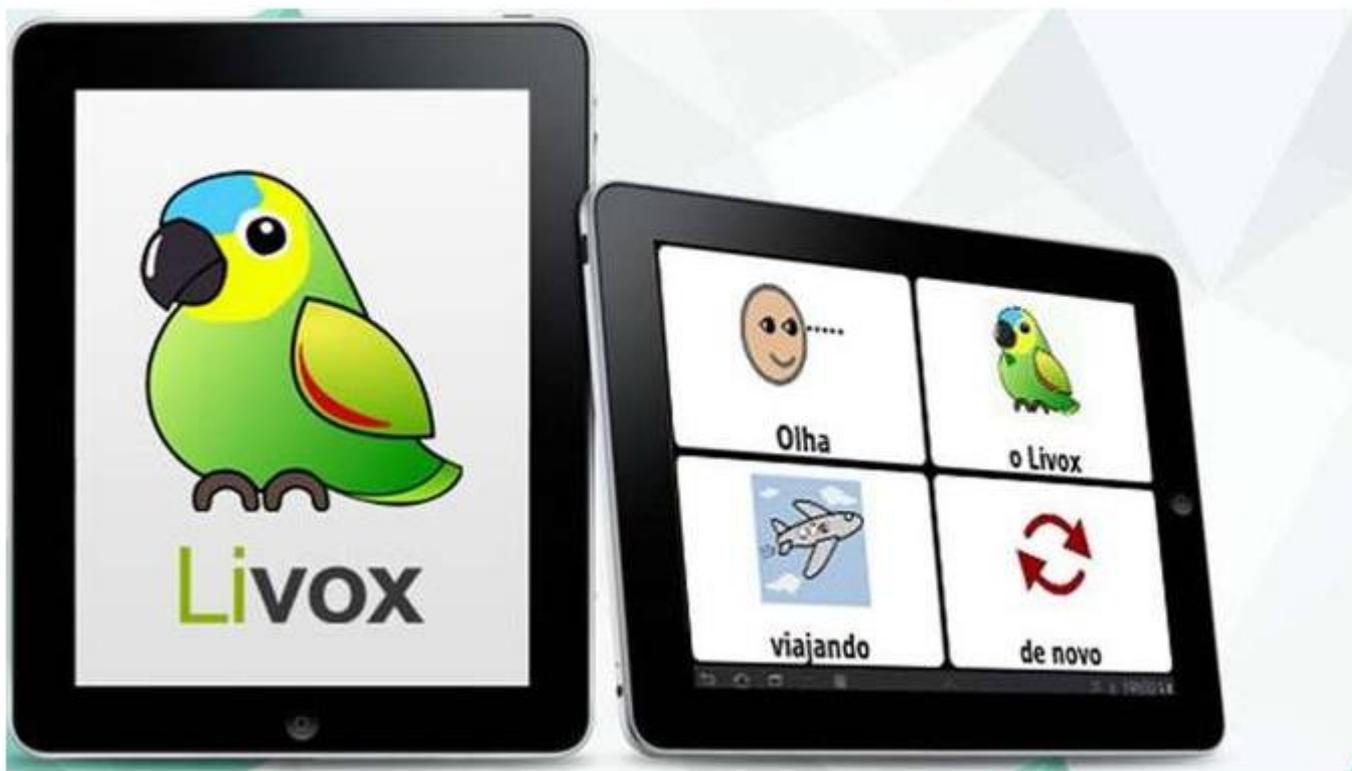
Fabrizio Stasolla ¹, Alessandro O Caffò ², Viviana Perilli ¹, Adele Boccasini ¹, Rita Damiani ¹, Flavia D'Amico ³





Aplicativo criado por brasileiro ajuda pessoas com deficiência a se comunicarem

Postado por [InteligenciaInovacao](#) | maio 10, 2018 | [Empreendedorismo](#) | [0](#)



ESPASTICIDADE

- Medicamentos orais - melhora parcial por curtos períodos
- Efeitos indesejáveis
 - BACLOFEN - sonolência, náuseas e vômitos
 - DIAZEPAN - sonolência ou quadro de agitação
- Injeção de álcool no músculo
- – reduz espasticidade 6 semanas
- Toxina botulínica
 - cara, vantagens em relação ao álcool
 - Injeção não dolorosa
 - Efeito prolongado (3 a 6 meses)



PARALISIA CEREBRAL

ATENDIMENTO

ODONTOLÓGICO

ACHADOS BUCAIS

LESÃO DE CÁRIE

Dificuldades autocuidado

Dieta pastosa

Respiração bucal crônica

Alimentos + tempo boca - disfagia

GENGIVITE

PERIODONTITE

Anticonvulsivantes

Fenitoína + biofilme

BRUXISMO

MALOCCLUSÃO

TRAUMATISMOS DENTÁRIOS

MANEJO NO CONSULTÓRIO ODONTOLÓGICO



ADAPTAÇÃO NA CADEIRA ODONTOLÓGICA



ADAPTAÇÃO NA CADEIRA ODONTOLÓGICA



"CALÇA DA VOVÓ:"



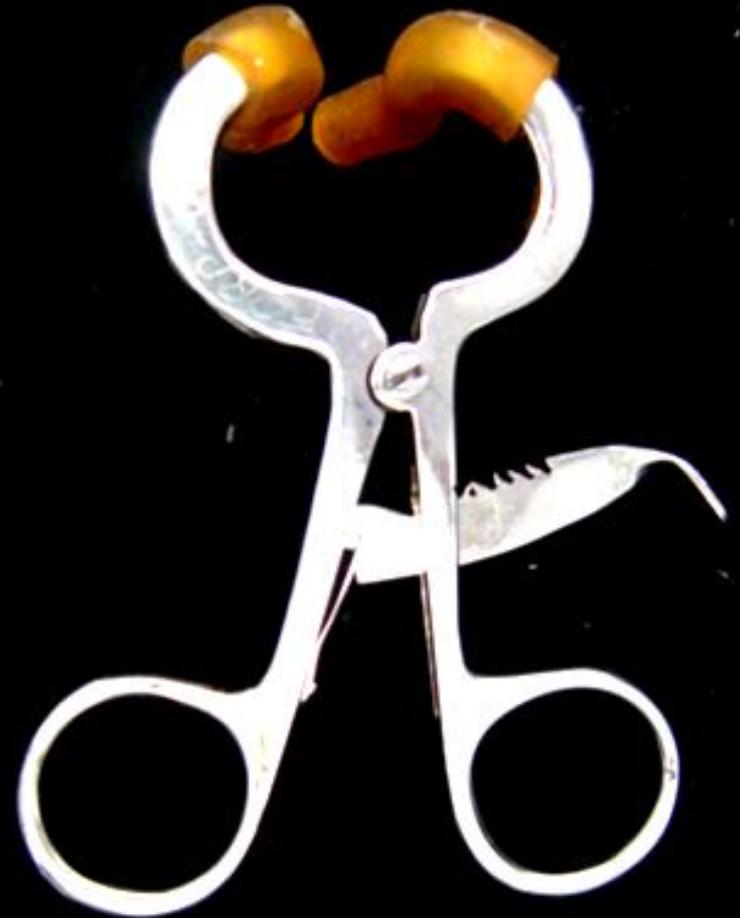
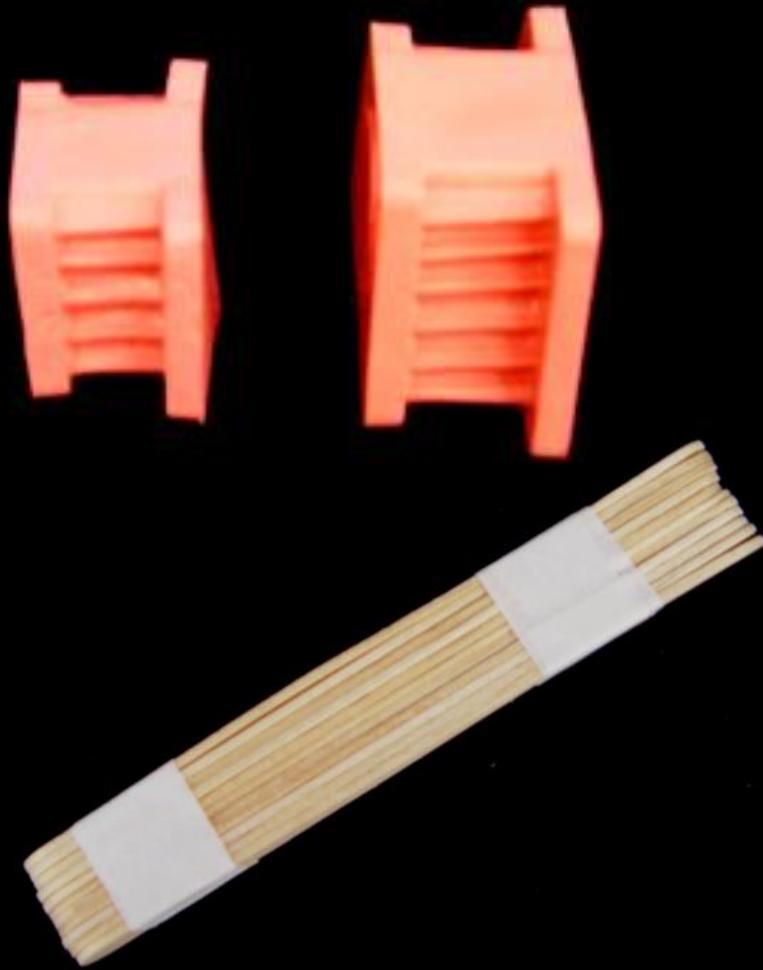
"CALÇA DA VOVÓ"



ABRIDORES DE BOCA



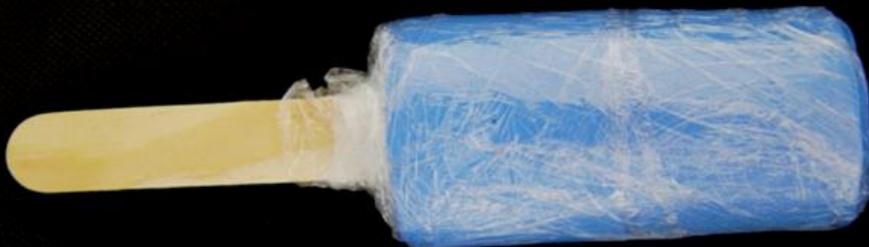
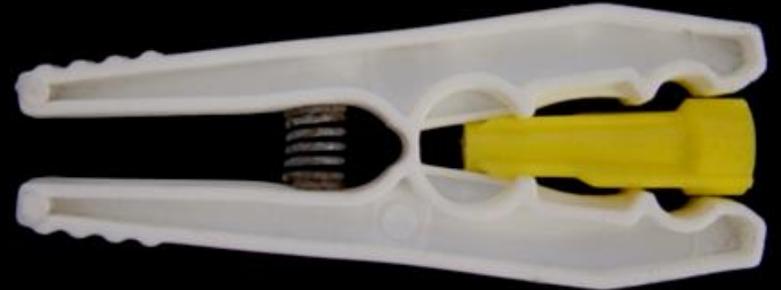
ABRIDORES DE BOCA



Caso Clínico Dra. Patrícia Motta Fernandes

ABRIDORES DE BOCA

NO DOMICÍLIO





Educando a
Família

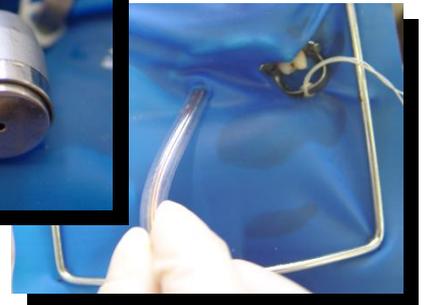
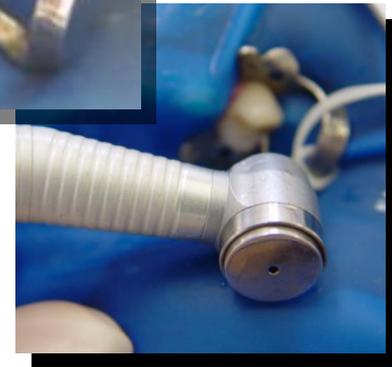
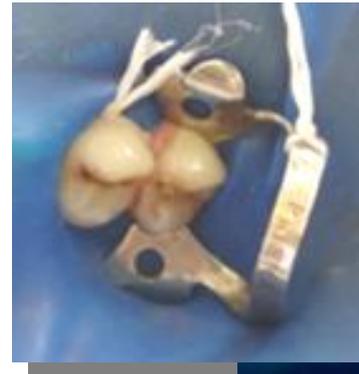


PROCEDIMIENTOS ODONTOLÓGICOS

ANESTESIA



ISOLAMIENTO ABSOLUTO



CONTROLE QUÍMICO-MECÂNICO DO BIOFILME DENTÁRIO

Caso Clínico Dra. Patrícia Motta Fernandes



CONTROLE QUÍMICO-MECÂNICO DO BIOFILME DENTÁRIO

Caso Clínico Dra. Patrícia Motta Fernandes





ORIGINAL ARTICLE

Year : 2015 | Volume : 5 | Issue : 5 | Page : 389--393

Use of different oral hygiene strategies in children with cerebral palsy: A comparative study

Ashwini Maiya¹, Y Rajmohan Shetty², Kavita Rai¹, Vivek Padmanabhan³, Amitha M Hegde²,

The children who were part of the study were randomly divided into four groups of 16 children each as follows:

Group 1: Manual toothbrush with fluoridated toothpaste

Group 2: Manual toothbrush with fluoridated toothpaste and CHX spray

Group 3: Powered toothbrush with fluoridated toothpaste

Group 4: Powered toothbrush with fluoridated toothpaste and CHX spray.

A toothbrush (manual or powered as per the group), fluoridated toothpaste, and a custom-made CHX spray were provided to the parents/caretakers. Horizontal tooth brushing with manual toothbrush and the correct usage of powered toothbrush with pea-sized amount of fluoridated toothpaste was advised to be performed twice daily (once in the morning and the other time in the night following dinner) by the parents/caretakers. The caretakers were requested to complete the **activity of brushing in 2 min.**[11]

The parents/caretakers applied the custom-made **0.2% CHX spray formulations (a total of 12 sprays were applied), one each on the buccal and the lingual surfaces of each arch on a twice-daily basis after half an hour of tooth brushing.** The CHX spray was

applied half an hour after tooth brushing **to prevent any possible interaction with the anionic ingredients present in the toothpaste and competition for oral retention sites.**[4] The children in the group who were asked to use **CHX spray** were instructed to stop the usage of the spray at the **end of 1 week and continue tooth brushing alone,** because of the reported **short-term side effects of chlorhexidine.**[12]

Preventive home care measures were advised to be followed for a period of 6 weeks. The oral hygiene and the gingival health



Traumatic dental injuries in children with special health care needs

Ola B. Al-Batayneh¹  | Arwa I. Owais¹ | Majd O. Al-Saydali¹ | H. Barry Waldman²

Material and Methods: Children (n=959) were examined in schools/centers for CSHCN, and compared to a healthy age- and gender-matched control group. Data concerning demographics, types of trauma, risk factors associated with TDI, and treatment-seeking behavior were collected. Data were analyzed using SPSS for descriptive and bivariate analyzes. Significance level was set at $P \leq .05$.

Results: Prevalence of TDI in the study group (age, 11.76 ± 4.2 years) and control group (age 11.70 ± 4.2 years) was (83 of 959, 8.7%) and (42 of 1010, 4.1%), respectively. TDI prevalence was highest in children with multiple disabilities (14.0%), followed by intellectual disabilities (13.1%), and cerebral palsy (12.2%). The most common type of TDI was an uncomplicated crown fracture (91.0%). Increased overjet and incompetent lips were significant risk factors associated with TDI. Reasons for not seeking treatment in the study vs control group included parental attitude and lack of dental awareness (68.1% vs 60%), difficulties getting an appointment and availability of dental clinics willing to see CSHCN (36.2% vs 0%), $P \leq .01$, and financial reasons (31.9% vs 40%).

Conclusions: Prevalence of TDI was higher in CSHCN, and associated with increased overjet and incompetent lips. Uncomplicated crown fracture was the most common injury. In both groups, the main reason for not seeking treatment was lack of dental awareness





BRUXISMO

Lasers Med Sci (2017) 32:1279–1288
DOI 10.1007/s10103-017-2236-4



ORIGINAL ARTICLE

Efficacy of photobiomodulation therapy on masseter thickness and oral health-related quality of life in children with spastic cerebral palsy

Maria Teresa Botti Rodrigues Santos^{1,2,3} · Karla Santos Nascimento³ · Simone Carazzato³ · Alina Oliveira Barros^{1,4} · Fausto Medeiros Mendes⁵ · Michele Baffi Diniz¹

Ultrasonography

Measurement of the amplitude of mouth opening

Parental-caregiver perception questionnaire

Photobiomodulation therapy

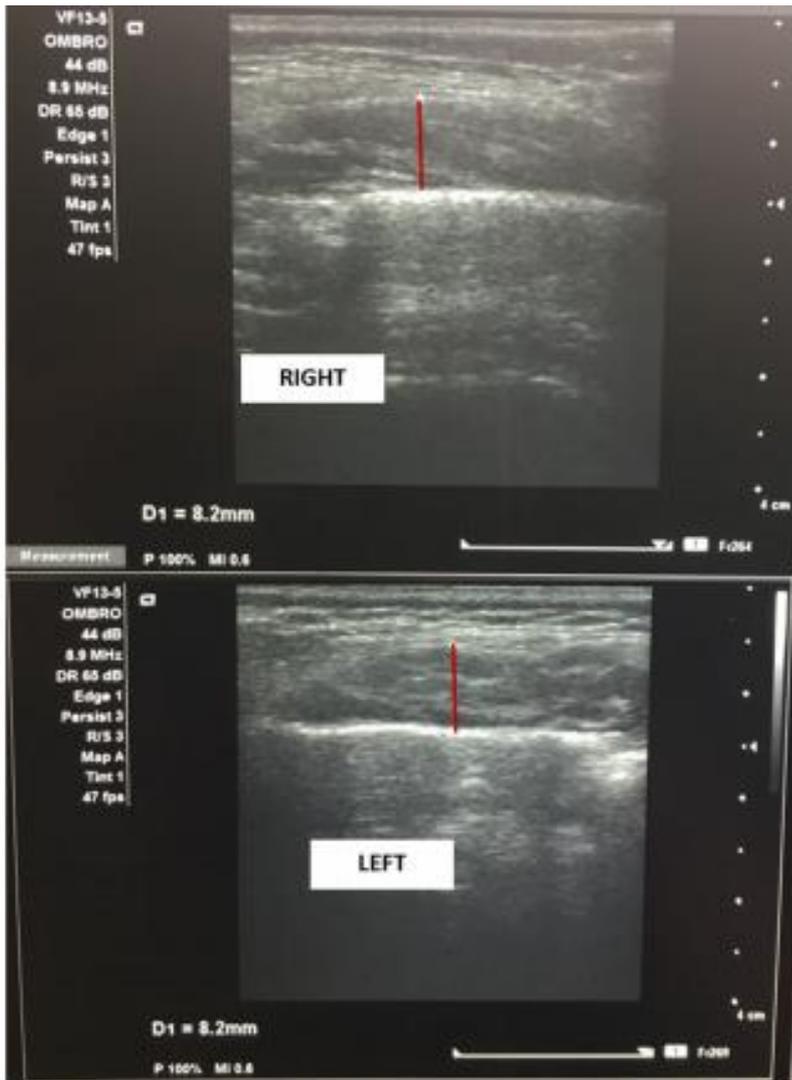


Fig. 3 Masseter thickness in millimeters in 11-year-old spastic CP children (PCG)

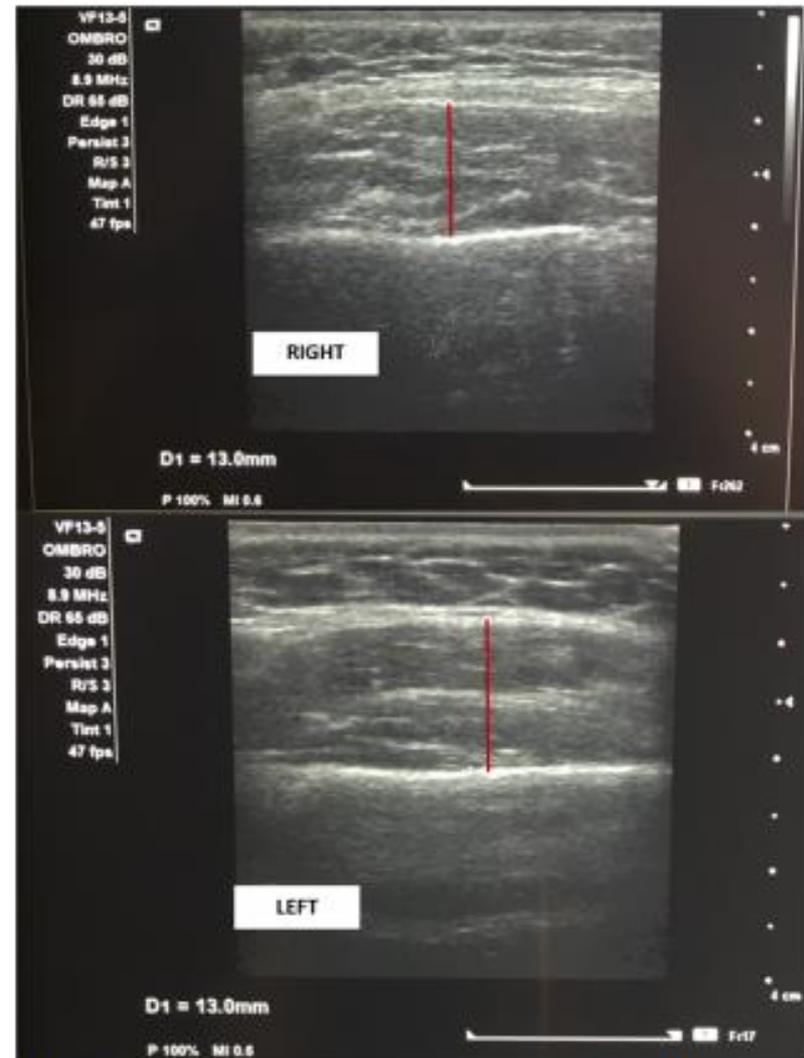


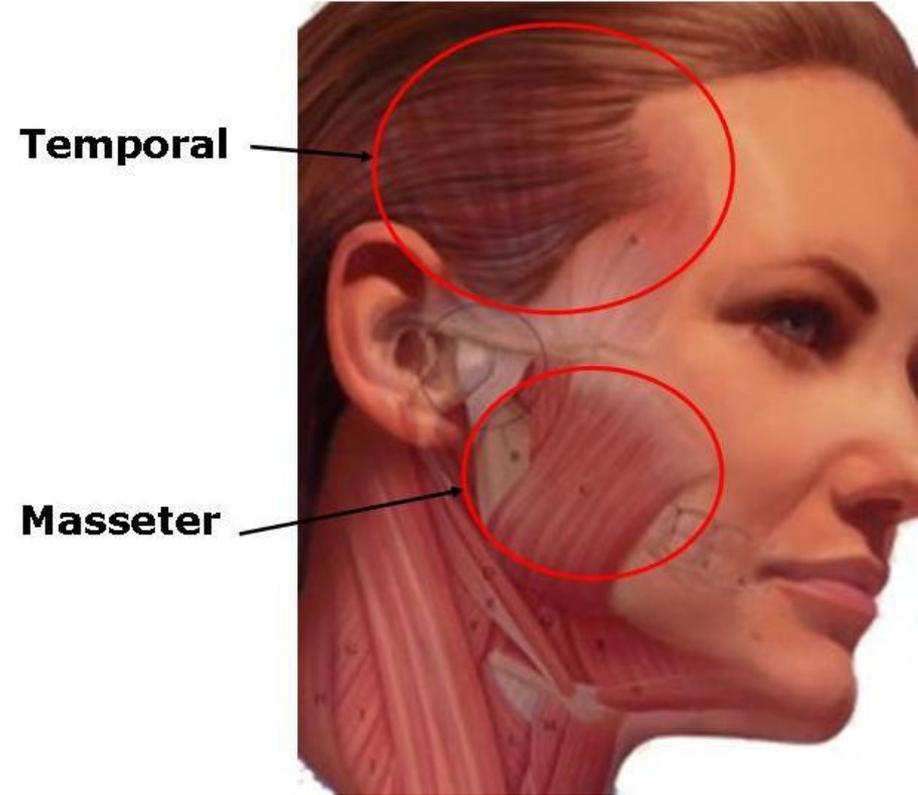
Fig. 4 Masseter thickness in millimeters in 13-year-old children without CP (NCG)

Ultrasonography

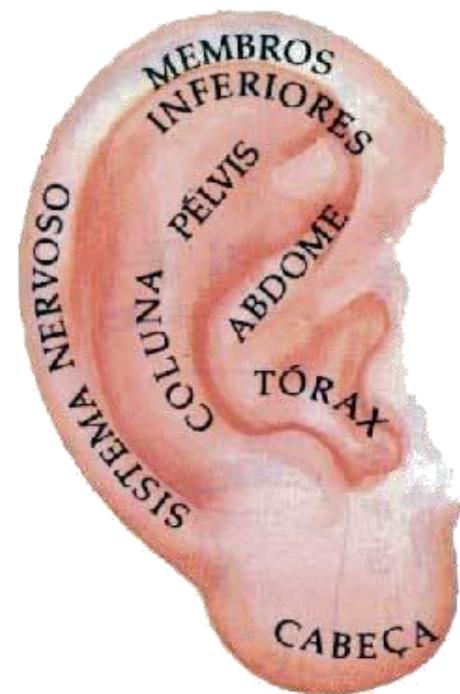
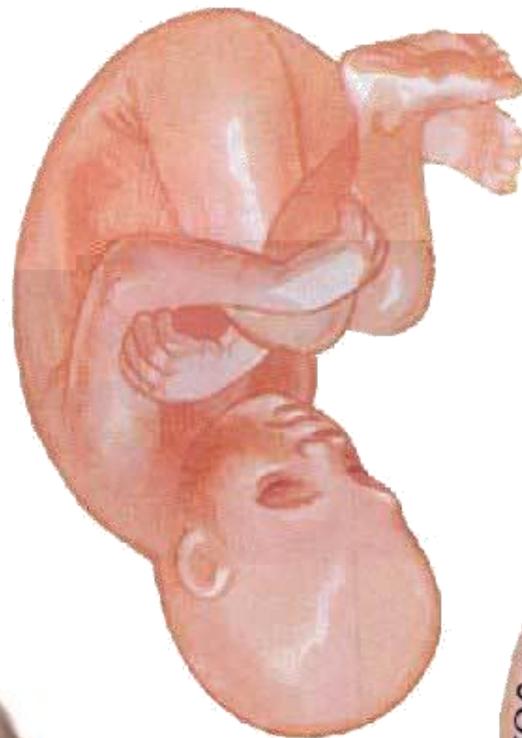
Photobiomodulation therapy

The same calibrated examiner (MTBRS) performed all of the clinical examinations, using the same methodology as described in a previous study by our group [20], who assessed the muscle by palpation through a 2 s application of pressure [21]. The location of PBMT irradiation was the point of greatest contraction determined by palpation.

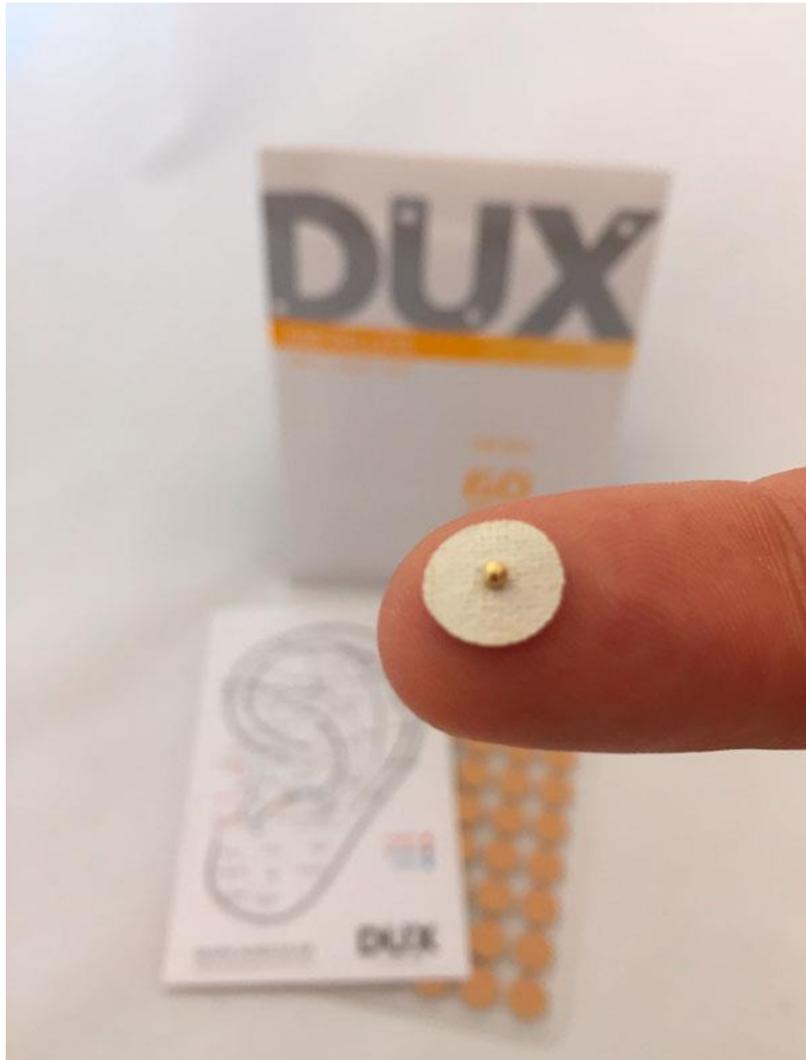
In the EG, the masseter muscles on both sides of the face were irradiated in the middle of the muscle once a week for six consecutive weeks. Laser irradiation was performed with a continuous wave (CW) infrared low-level Ga-Al-As laser ($\lambda = 808 \pm 3$ nm, 120 mW, Twin Flex Evolution Laser MMOptics, São Paulo, São Paulo, Brazil), using a 3 J/cm^2 energy dose per site, with a 20 s exposure time per site (spot area: 4 mm^2 ; irradiance: 3 W/cm^2 ; energy delivery per point: 2.4 J). The parameters of PBMT were determined based on a previous study [13].



AURICULO TERAPIA



BRUXISMO



FLORAIS DE BACH

BEECH

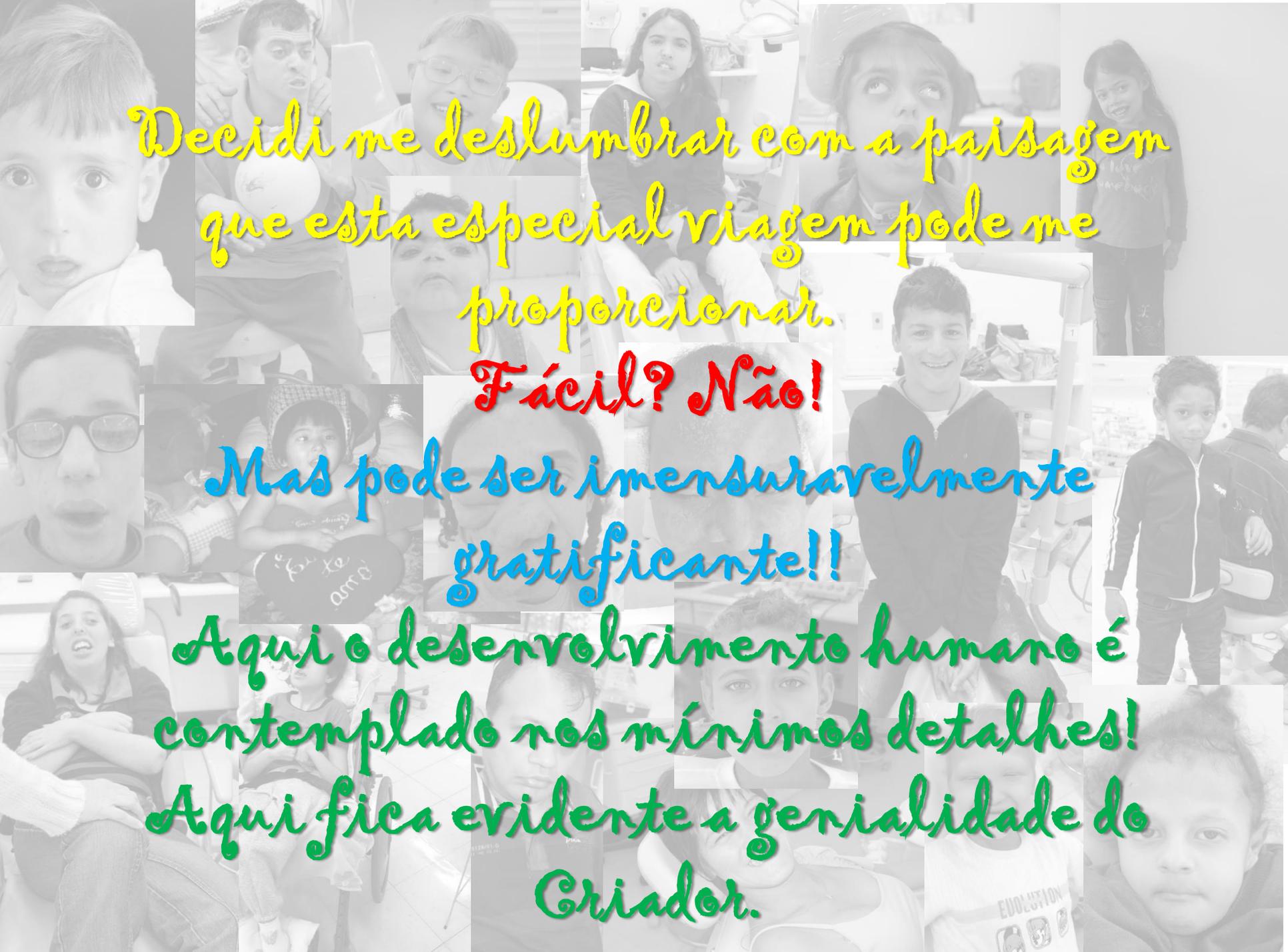
WHITE CHESTNUT

HOLLY

VERVAIN

IMPATIENS





Decidi me deslumbrar com a paisagem
que esta especial viagem pode me
proporcionar.

Fácil? Não!

Mas pode ser imensuravelmente
gratificante!!

Aqui o desenvolvimento humano é
contemplado nos mínimos detalhes!
Aqui fica evidente a genialidade do
Criador.

