Efficacy of injectable substances in the treatment of glottic insufficiency: A systematic review

Renato Battistel Santana*, Regina Helena Garcia Martins, José Paulo Pinotti Ferreira Junior,

Débora Pereira Henriques, Antonio Jose Maria Catâneo, Isabella Gonçalves Pierri, Alexandre Palaro Braga, Neemias Santos Carneiro

Departamento de Otorrinolaringologia e Cirurgia de Cabeça e Pescoço, Universidade Estadual Paulista ''Júlio de Mesquita Filho'' (Unesp), Botucatu, SP, Brazil

E-mail address: renato_battistel@hotmail.com (R.B. Santana)

Objectives: To evaluate, through a systematic review, the results of glottic insufficiency treatments with the two most used injectable substances (hyaluronic acid or hydroxyapatite).

Methods: The question is whether injectable substances (hyaluronic acid or hydroxyapatite) are effective in treating patients with glottic incompetence. As criteria for inclusion of studies for this review, studies evaluating the function of the vocal folds before and after one and six months of injection of injectable substances (hyaluronic acid or hydroxyapatite), adult patient with atrophy, scars and unilateral paralysis of the vocal folds with glottic incompetence. The intervention was the use of treatments with injectable drugs (hyaluronic acid or hydroxyapatite). Control was established with adult patients with atrophy, scars and unilateral paralysis of the vocal folds with glottic incompetence, before intervênção. As outcomes, the reduction of the score in the vocal handicap index questionnaire, reduction of the scores of the auditory-perceptual evaluation of the voice by the GRBAS scale and increase in the values of the maximum phonation time were evaluated.

Results/conclusion: Both injectable substances, hydroxyapatite or hyaluronic acid, proved to be effective in the treatment of glottic incompetence.

Keywords: Glottic insuficiency; Larynx; Voice; Fillers; Vocal fold.

https://doi.org/10.1016/j.bjorl.2022.10.030

Language development in children with prelingual deafness from a public cochlear implant program

Alice Lang Silva^a, Isadora Martins da Silva Stumpf^b, Laura Prolla Lacroix^c, Debora Milena Ferreira Alves^c, Bianca Brinques da Silva^{b,*}, Adriana Laybauer da Silveira^d, Sady Selaimen da Costa^{a,b},

Letícia Petersen Schmidt Rosito b,c

- ^a Programa de Pós-Graduação em Saúde da Criança e do Adolescente, Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil
- ^b Serviço de Otorrinolaringologia, Hospital de Clínicas de Porto Alegre (HCPA), Porto Alegre, RS, Brazil
- ^c Faculdade de Medicina, Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil
- ^d Serviço de Fonoaudiologia, Hospital de Clínicas de Porto Alegre (HCPA), Porto Alegre, RS, Brazil

E-mail address: bianca.brinques@gmail.com (B.B. da Silva)

Introduction: Prelingual deafness has a great impact on communication and, consequently, on cognition, school

performance, emotional development and psychosocial well-being. In cases of severe-profound deafness, cochlear implants (CI) may be indicated. Many hospitals provide this treatment in Brazil through the public health system. However, there are few national studies that evaluate the performance of patients implanted in developing countries.

Objective: To evaluate the rate of loss to follow-up in a CI program from the public health system in Southern Brazil as well as the characteristics of hearing loss, sociodemographic, sociocultural and the development of oral language in children with prelingual deafness.

Methods: Retrospective cohort study with children who underwent CI surgery between 2010 and 2020. Data was collected through of interviews and review of medical records. The language development assessment was performed using the MUSS, MAIS and IT-MAIS scales. For the classification of language development we used as parameters the values (mean \pm SD) found in a previous national study. From those values, the Z score for each patient at each hearing age (time of experience with the CI) was calculated.

Results: Of the 189 children implanted between 2010 and 2020, 129 were included in this study. The rate of loss to follow-up in the program was 31.7%. The mean age at first CI surgery was 40.5 (\pm 16.9) months, with 77.5% of patients having received a unilateral implant. Language results below the expected for hearing age (<Z score -1) for the MAIS score were found in 59.7% of the sample, while for the MUSS score the proportion was 62%.

Conclusions: The high rate of loss to follow-up in the program is a fact that deserves attention together with the low percentage of language development of these patients. Some variables emerge as potential prognostic markers for this population and are in line with findings from other studies in the literature. However, such correlations deserve more attention in prospective and longitudinal analyses.

Keywords: Cochlear implant; Prelingual deafness; Language development disorders.

https://doi.org/10.1016/j.bjorl.2022.10.031

Factors associated to language development in children with prelingual deafness

Alice Lang Silva^a, Isadora Martins da Silva Stumpf^b, Laura Prolla Lacroix^c, Debora Milena Ferreira Alves^c, Bianca Brinques da Silva^{b,*}, Adriana Laybauer da Silveira^d, Sady Selaimen da Costa^{a,b},

Letícia Petersen Schmidt Rosito b,c

- ^a Programa de Pós-Graduação em Saúde da Criança e do Adolescente, Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil
- ^b Serviço de Otorrinolaringologia, Hospital de Clínicas de Porto Alegre (HCPA), Porto Alegre, RS, Brazil
- ^c Faculdade de Medicina, Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil
- ^d Serviço de Fonoaudiologia, Hospital de Clínicas de Porto Alegre (HCPA), Porto Alegre, RS, Brazil

E-mail address: bianca.brinques@gmail.com (B.B. da Silva)

Introduction: Cochlear implant (CI) has as its primary objective to promote access to sounds with consequent language development. However, outcomes are not constant,