

LARYNGEAL CANCER TREATMENT: REVIEW OF LITERATURE PUBLISHED OVER THE LAST TEN YEARS

Tratamento do câncer de laringe: revisão da literatura publicada nos últimos dez anos

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ABSTRACT

The purpose of this study was to analyze the characteristics of the scientific bibliographic production about the larynx cancer treatment in the last ten years. It was followed the *Cochrane Handbook* precepts, that involved the formulation of the question to investigate, the localization, the studies selection and the critical assessment of the articles. The articles published between 2002 and 2011 were shortlisted by the data base LILACS e SciELO, using the laringect\$ descriptor and in the data base PubMed, using the laringect* descriptor. It was analyzed the full texts, potentially relevant for the review, using a standardized form, when the following data were collected: goals, research design, characteristics of the research group, findings and discussion about the larynx cancer treatment. Initially it was identified 299 studies. After the titles and abstracts review, consideration of inclusion and exclusion test, coherence check with the researched thematic and elimination of the studies which were at the same time in more than one data base, 72 were sure enough analyzed to be larynx related to the topic in its descriptors and/or in the abstracts. From this research it is possible to verify gaps and opportunities for the development of studies that verify standardized techniques of larynx cancer treatment with the increasing of analytical and interventional studies based on clinical trials randomized, considering especially guidelines as CONSORT, STROBE e GRADE for its planning and publication.

KEYWORDS: Laryngectomy; Laryngeal Neoplasms; Tracheostomy; Therapeutics; Review; Complications

■ INTRODUCTION

Laryngectomy is a surgical procedure in which sometimes all the structures that produce laryngeal sound and from neighboring muscles are removed, transferring nasal flow to tracheostoma. Laryngectomies may be partial or total and tracheostomy may be temporary or definitive.

Total laryngectomy consists in removing the larynx, it implies the loss of physiological voice and in definitive tracheostomy an artificial hole is made in the trachea, below the larynx¹.

One of the reasons why this procedure is sometimes necessary when a person remains without these important structures is when cancer occurs¹.

According to data from INCA-National Cancer Institute, Brazil has a high incidence of laryngeal malignant tumors, the second most frequent being the upper aerodigestive tract, accounting for 25% of head and neck malignant tumors and 2% of malignant neoplasms. Moreover, it is the sixth most common location in the male population of 40 years in average, with 3,369 deaths recorded in 2011. The treatment of laryngeal cancer depends on the location and extent, it can be treated with surgery and/or radiotherapy and chemotherapy combined with radiotherapy.

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Conflict of interest: non-existent

Due to the great importance of preserving the voice for the patient's quality of life, sometimes radiation therapy can be used first, leaving surgery for the salvage. In addition, even in patients who were submitted to total laryngectomy the rehabilitation of voice is possible through the esophageal voice, tracheo-esophageal phonation prosthesis¹ and the use of eletrolarynx².

Currently, many studies demonstrate the impact severity of laryngectomy on patients' quality of life. More precisely in the physical aspects (comfort and pain), personal, family, social and professional².

Communication ability is a fundamental element to the quality of life and all preventive action in this area will contribute significantly to promoting global health³.

Speech therapy has been trying to build its knowledge, directing its practices not only for the technological development, but also to widen formal content, social and political responsibility, contributing for the improvement of conditions of life in the population³.

The speech therapist who works in the public health needs updates that meet the guidelines and principles of the NHS, turning not only for rehabilitation therapy, but also for the promotion and prevention⁴.

In view of the need to know the topic, the advancements and gaps in the scientific knowledge accumulated in terms of laryngeal cancer the objective of the study is to analyze the bibliographic production indexed on partial and total laryngectomies in the last ten years.

■ METHODS

Cochrane Handbook precepts were followed that involved the formulation of the question to be investigated, the location, the studies selection and the critical assessment of the articles. The question in the investigation that subsidized the review was: "Which are the characteristics of the scientific bibliographic productions on the laryngeal cancer treatment?".

In formulating the question for investigation, there was an attempt to do the bibliographic research on the central theme of this paper, based on LILACS,

SciELO and PubMed database. The following parameters were used: laringect\$, for LILACS and SciELO database (for abstract and title); and laringect* (abstract and title) for PubMed database.

■ LITERATURE REVIEW

Selection of the Articles

In this study articles published between 2002 and 2011 in journals indexed in LILACS, SciELO and PubMed database available in full were included. This enabled a more detailed analysis of the characteristics of bibliographic productions on the treatment of laryngeal cancer.

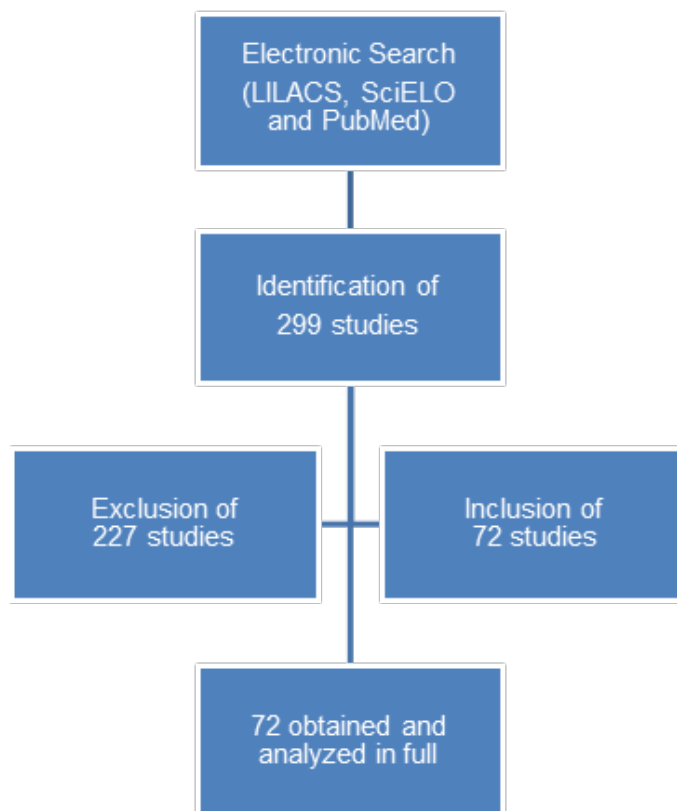
For the selected articles the criteria for inclusion was the term used in the search, at least in one of the places: key-words, abstract and/or title. In addition, it was used as criteria for inclusion: complete articles published in Portuguese between the years 2002 and 2011, in LILACS, PudMed and/or Scielo database on the research theme.

Criteria for exclusion considered: texts with insufficient data for the study, studies not related to the objective of the research, texts found in more than one database and studies published outside the period related to the objective of the research.

Analysis of the Articles

Only those studies which abstract had a relationship with the objective of the study were evaluated and selected, and later the full articles were obtained. The complete texts were analyzed, potentially relevant for review, using a standardized form in which the following data was collected: objectives, research design, findings and discussion on the treatment of laryngeal cancer.

Initially, 299 studies were identified. After reviewing the titles and abstracts, as well as reviewing the studies considering the criteria for inclusion and exclusion, 72 studies were actually analyzed as they referred in their results and/or in their conclusions to the theme of laryngeal cancer (Figure 1).



Exclusion criteria: Texts with insufficient data for the study, studies not related to the research objective, texts found in more than one database and studies published outside the period related to the objective of the research.

Inclusion Criteria: Complete studies published in Portuguese between the years of 2002 and 2011, in LILACS, PudMed and/ or Scielo database on the research theme.

Figure 1 – Schematic representation of the research method and results obtained: excluded and included studies

■ RESULTS AND DISCUSSION

Analyzing all the articles selected for the research (Figure 2) it was found a large percentage from the medical sector that deals with the concern of these researchers, especially after the year 2007,

regarding the use of surgical techniques for the treatment of laryngeal cancer. Many studies⁵⁻²¹ have been done with the aim to investigate the efficiency of different surgical methods with a view to the most satisfactory possible prognostic in these patients affected by cancer.

Study	Authors	Article Title, Journal and Year of Publication	Study Design	Objectives	Main Results	Results Presentation and Discussion
1	Ballin AC, Filho EDM, Sela GB, Catani GS, Filho JMI, Ballin CH et al.	Avaliação sistematizada da dificuldade de exposição das pregas vocais na microcirurgia da laringe. Arq. Int. Otorrinolaringol. 2010; 14(3):294-30.	Prospective, randomized	Create a standard scale of difficulty leasing the laryngoscope during microsurgery of the larynx, with a focus on the exposure of vocal folds (PPVV); to evaluate which clinical parameters predict difficulty of exposure of PPVV; verify the improvement with the laryngoscope hanger.	The use of laryngoscope hanger improved the laryngeal exposure significantly. The proposed scale visualization standardizes and grades the difficulty of vocal folds exposure, facilitating comparisons between studies and communication between otolaryngologists.	Medical treatment aspects
2	Takeshita TK, Zozolotto HC, Ricz H, Dantas RO, Ricz LA.	Correlação entre voz e fala traqueoesofágica e pressão intraluminal da transição faringoesofágica. Pró-Fono Revista de Atualização Científica 2010; 22(4): 485-90.	Series of cases	Co-relate the voice and speech proficiency of total laryngectomized users of tracheoesophageic prosthesis with the intraluminal pressure of the esophagus at rest and during phonation pressure of the Esophagus at rest and during phonation.	Lower values of pressure amplitude during phonation.	Voice and swallowing aspects and medical treatment aspects.
3	Mello GM, Kowalski LP.	Análise dos fatores de risco para complicações pulmonares em pacientes laringectomizados: estudo retrospectivo de 1985 a 1996. Rev. Bras. Cir. Cabeça Pescoço 2009; 38(4):232 – 41.	Retrospective	Identify risk factors for postoperative pulmonary complications for lung metastases and the presence of a second primary lung tumor in laryngectomized patients in the period 1985-1996.	Risk factors were: histological differentiation and surgical margins.	Medical treatment aspects
4	Chedid HM, Amar A, Lehn CN, Franzi SA, Rapoport A.	Avaliação dos fatores clínicos e do tratamento em pacientes com carcinoma epidermóide da laringe submetidos à cirurgia. Rev. Bras. Cir. Cabeça Pescoço 2009; 38(4):242-5.	Retrospective	Evaluate the disease-free survival in patients with laryngeal squamous cell carcinoma who were submitted to surgery.	The disease-free survival at five years was 67.5% and supraglottic subsite determined disease-free survival at five years of 50% versus 77,5% in glottic tumors.	Medical treatment aspects
5	Gomes TABF, Melo FR.	Qualidade de vida do laringectomizado traqueostomizado. Rev. Bras. Cir. Cabeça Pescoço 2010; 39 (3):199-205.	Quali-quantitative	Assess the quality of life of patients submitted to laryngectomy tracheostomy, from a specific questionnaire translated and validated into Portuguese in patients submitted to partial or total laryngectomy that are tracheostomized and evaluate possible differences between the mean scores of the questionnaire with different age groups and genders.	Significant alterations in speech and swallowing, especially in women, have been considered good overall quality of life.	Quality of life aspects
6	Meyer G, Silva GS, Sousa AA, Soares JMA, Salles JMP.	Reconstrução de hipofaringe com retalho miocutâneo peitoral maior após faringolaringectomia total. Rev. Bras. Cir. Cabeça Pescoço 2010; 39(4):290-2.	Series of cases	Present three cases of circular pharyngolaryngectomy and making of neopharynx with pectoralis major myocutaneous flap associated with skin graft in pre-vertebral fascia.	Use of pectoralis major muscle flap is valid option for reconstruction of the hypopharynx after circular pharyngectomy.	Quality of life aspects

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7	Chahade MTL, Mamede R, Souza L, Ricz LN, Ricz HM.	Análise acústica da voz traqueoesofágica com períodos distintos de uso de prótese. Rev. Bras. Cir. Cabeça Pescoço 2011; 40(2): 66-70.	Case-control	Analyze the correlation between duration of use of the tracheoesophageal prosthesis and vocal parameters and compare them in groups using the same prosthesis in different times.	There was no significant difference in the groups under and above 10 months of use.	Voice and swallowing aspects and medical treatment aspects.
8	Kim JDU, Andrade NMM, Brescia MEG, Sugueno LA, Simões CA, Dedivitis RA et al.	Nova técnica de confecção de fistula traqueoesofágica secundária e locação de prótese fonatória em pacientes submetidos a laringectomia total. Rev. Bras. Cir. Cabeça Pescoço 2011; 40(3):120-4.	Series of cases	Describe a new simple and safe technique of making secondary tracheoesophageal fistula with Optical Device Installation Prosthesis.	Five of six patients had success with the new technique without complications during surgery and with emission of sound through the voice prosthesis in the immediate postoperative period.	Medical treatment aspects.
9	Ahumada NG, Oliveira CLA, Takimoto RM, Ferraz R.	Grampeador no fechamento da faringe após laringectomia total: experiência de 7 anos. Rev. Bras. Cir. Cabeça Pescoço 2011; 40 (3):144-7.	Records review	To evaluate the incidence of pharyngocutaneous fistulas and postoperative infection in patients submitted to total laryngectomy with pharyngeal closure using stapler, treated at our institution over the past seven years.	All fistulas closed with clinical treatment without the need for re-operation. The 5-year survival average was 45.46%.	Medical treatment aspects.
10	Silva DCF, Takimoto RM, Gielow I, Cervantes O.	Avaliação da deglutição e da qualidade de vida relacionada à deglutição de indivíduos submetidos a laringectomia total: comparação entre as técnicas manual e mecânica (stapler) de reconstrução faríngea. Rev. Bras. Cir. Cabeça Pescoço 2011; 40 (4):178-85.	Case-control	Compare swallowing and swallowing quality of life in patients submitted to total laryngectomy according to the type of pharyngeal closure (manual x mechanic).	The group with mechanical closure presented less time of use of nasoenteral probe than the group with manual closure, this being statistically significant.	Voice and swallowing aspects and quality of life aspects.
11	Bettinelli LA, Tourinho Filho H, Capoani P.	Experiências de idosos após laringectomia total. Rev Gaúcha Enferm. 2008; 29(2):214-20.	Exploratory descriptive	Know the experiences of the laryngectomized elderly.	Difficulties in communication cause deterioration in the quality of life and well-being of the patient, since it causes significant changes in the emotional and social aspects that interfere in interpersonal and family relationships generating isolation.	Quality of life aspects.
12	Barbosa LNF, Francisco AL.	Paciente laringectomizado total: perspectivas para ação clínica do psicólogo. Paidéia 2011; 21 (48):73-81.	Transversal descriptive	Investigate the psychosocial effects on subjective construction of laryngectomized patients and their caregivers.	The loss of speech may cause the patient to isolate themselves socially, to move away from their professional duties, with feelings of shame and guilt, causing intense anguish and suffering. Caregivers suffer at the possibility of losing a loved one and also by attempts, not always successful, to support and provide ambience to the new needs that arise.	Quality of life aspects.

Study	Authors	Article Title, Journal and Year of Publication	Study Design	Objectives	Main Results	Results Presentation and Discussion
13	Santos CB, Caria PHF, Tosello DO, Bérzin F.	Comportamento dos músculos cervicais em indivíduos com fala esofágica e laringe artificial Rev. CEFAC 2010; 12(1):82-90.	Case-control	Assess using surface electromyography behavior of the sternocleidomastoid and cervical paraspinal muscles bilaterally in patients who communicate through the esophageal and artificial larynx speech, to determine if the type of voice used changes the behavior of the cervical muscles.	In phonation there was no alteration in the pattern of muscle activation in individuals that use esophageal speech and artificial larynx, compared to the control group. However, there was significant difference at rest.	Medical treatment aspects.
14	Gadenz CD, Souza CH, Cassol M, Martins VB, Santana MG.	Análise da qualidade de vida e voz de pacientes laringectomizados em fonoterapia participantes de um grupo de apoio. Distúrb Comum. 2011; 23(2):203-15.	Transversal	Assess voice quality of life in laryngectomized patients in speech therapy participating in a support group.	The result of the Protocol of Voice Quality of Life, physical and socio-emotional aspect, the average was 66.66 and 73.04 respectively.	Quality of life aspects and voice and swallowing aspects.
15	Manfro G..	Importância prognóstica da reatividade linfonodal e de micrometástases em pacientes com câncer de laringe avançado sem metástase cervical. Tese apresentada a faculdade de medicina da Universidade de São Paulo para obtenção do título de doutor em ciências. São Paulo 2009	Series of cases	Relate the lymph node activity with relapse and mortality of patients with laryngeal carcinoma staged as pT3 and pT4, pN0, submitted to total laryngectomy associated with neck dissection at levels II, III and IV bilaterally.	The reactivity pattern of lymph node analyzed alone did not show a relationship with disease relapse or mortality.	Medical treatment aspects.
16	Pontes P, Brasil OOC, Filho FSA, Moraes BT, Pontes A, Neto JC.	Radioterapia para câncer glótico inicial e resgate cirúrgico após recorrência. Brazilian Journal of Otorhinolaryngology 2011; 77(3).	Retrospective	Evaluate the results of radiotherapy as the initial treatment in the control of squamous carcinoma of the vocal fold (T1) and the effectiveness of surgical salvage (endoscopic or external) after failure of this treatment.	Relapse rate after radiotherapy was 30.2% of cases, with a mean diagnosis interval of 29.5 months. As an option for rescue treatment, patients were submitted to external partial laryngectomy or endoscopic with a control rate of 77.7% and 25%, respectively.	Medical treatment aspects.
17	Pernambuco LA, Silva HJ, Nascimento GKBO, Silva EGF, Balata PMM, Santos VS et al .	Atividade elétrica do masseter durante a deglutição após laringectomia total. Brazilian Journal of Otorhinolaryngology 77 (5) Setembro/Outubro 2011.	Series of cases	Characterize the muscle electrical activity of the masseter muscle during swallowing in total laryngectomized patients.	There is moderate electrical activity of the masseter muscle during swallowing, with higher averages on the left side. There are no differences between swallowing 14.5 ml and 20 ml.	Medical treatment aspects and voice and swallowing aspects.
18	Caldas ASC, Facundes VLD, Melo TMA, Dourado Filho MG, Pinheiro Júnior PF, Silva HJ	. Alterações e avaliações das funções do olfato e do paladar em laringectomizados totais: revisão sistemática. J Soc Bras Fonoaudiol. 2011;23(1):82-8.	Systematic review	Systematically review the changes in the functions of smell and taste in patients submitted to total laryngectomy and identify aspects in the literature involved in the evaluation of these functions in this population.	Most studies attested decrease in sensory functions of smell and taste in patients who were submitted to total laryngectomy.	Quality of life aspects.
19	Cielo CA, Berwig LC, Wiethan FM, Schuster LC, Freitas GP, Urnau D.	Reabilitação fonoaudiológica pós-laringectomia fronto-lateral sem aritenoidectomia: Relato de caso. Salusvita 2011; 30(1): 21-37.	Case report	Describe the process of voice rehabilitation of a 61-year male patient submitted to fronto-lateral laryngectomy without aritenoidectomy in a Speech School Clinic.	Returned to the social life and consequent improvement in the patient's quality of life.	Quality of life aspects.

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20	Dedivitis RA, Andrade Sobrinho J, Castro MAF.	Fatores prognósticos e impacto da comorbidade na laringectomia fronto-lateral. Rev. Col. Bras. Cir. 2009; 36(5): 392-7.	Series of cases	Evaluate survival, comorbidity impact, complications and factors for failure of laryngectomy as a treatment of glottic malignancies.	Eight patients presented local relapse and were surgically salvaged. There were no complications observed in 33 patients. There was no significant difference in overall five-year and disease-free survival considering the different categories of comorbidities.	Medical treatment aspects.
21	Matos LL, Kanda JL, Pinto FR, Waisberg J, Henriques AC.	Faringocoloplastia como reconstrução tardia pós-faringolaringectomia total por carcinoma espinocelular de hipofaringe: relato de caso e revisão da literatura. Arq Bras Ciên Saúde 2009; 34(2) 108-12.	Case report	Report a case of a patient carrier of hypopharynx advanced squamous cell carcinoma that required extended resection including the cervical esophagus subsequently submitted to pharyngocoloplasty for restoration of gastrointestinal transit.	The approach represents an option for the control locoregional of the disease with improvement in the quality of life of these patients.	Medical treatment aspects.
22	Matos RE, Soares E, Castro ME, Fialho AVM, Caetano JA.	Dificuldades de comunicação verbal do cliente laringectomizado. Rev. enferm. UERJ 2009; 17(2):176-81.	Exploratory descriptive	Analyze the importance of verbal communication for ostomized client, assess whether he was informed about the change of speech and describe their feelings on the difficulty of verbal communication.	Verbal communication is an indispensable tool without which is impossible to have quality of life.	Voice and swallowing aspects and quality of life aspects.
23	Queija DS, Portas JG, Dedivitis RA, Lehn CN, Barros APB.	. Deglutição e qualidade de vida após laringectomia e faringolaringectomia total. Brazilian Journal of Otorhinolaryngology 2009; 75 (4): 556-64.	Prospective	Evaluate swallowing characteristics after total laryngectomy and pharyngolaryngectomy with T closure, and correlate with the questionnaire Quality of Life in Swallowing Disorders.	The questionnaire indicated a good quality of life in almost all scales. The complaints of dysphagia were associated with the questionnaire in burden and mental health scales. The questionnaire indicated an impact on mental health scale for patients with severe dysphagia.	Voice and swallowing aspects and quality of life aspects.
24	Melo GM, Curado TAF, Cherobin GB, Tavares TV, Gajo JL.	Condroma de Cartilagem Cricóide. Arq. Int. Otorrinolaringol. / Intl. Arch. Otorhinolaryngol. 2008; 12(4):591-5.	Case report	Report a chondroma of the cricoid cartilage case in a patient with symptoms of a nodular lesion in the anterior cervical region of slow and progressive growth.	Other modalities of treatment may be adopted in cases where the tumor extension indicates total laryngectomy or when this is not possible.	Medical treatment aspects.
25	Paula FC, Gama RR.	Avaliação de qualidade de vida em laringectomizados totais. Rev. Bras. Cir. Cabeça Pescoço 2009; 38 (3):177-82.	Prospective	Assess quality of life through specific questionnaire translated and adapted into Portuguese of Brazil, of patients submitted to total laryngectomy.	Voice rehabilitation and type did not present significant statistic correlation with the global score of quality of life. In free text, smell was the most frequent complaint.	Quality of life aspects.
26	Chone CT, Seixas VO, Andreollo NA, Quagliato E, Barcelos IHK, Spina AL et al.	Uso de manometria computadorizada para estudo do espasmo do segmento faringoesofágico em pacientes com voz traqueoesofágica inadequada antes e após aplicação de toxina botulínica. Brazilian Journal Of Otorhinolaryngology. 2009; 75 (2):182-7.	Prospective clinic	Objective analyzes of the PES, with CM, before and after treatment with botulinum toxin (BT).	Reduction in the pressure of the pharyngoesophageal segment spasm after injection of botulinum toxin computerized manometry in all patients with spasm improvement video-fluoroscopy.	Medical treatment aspects.

Study	Authors	Article Title, Journal and Year of Publication	Study Design	Objectives	Main Results	Results Presentation and Discussion
27	Dedivitis RA, Barros APB, Queija DS, Júnior EGP, Bohn NP.	Achados perceptivo-auditivos e acústicos em pacientes submetidos à laringectomia fronto-lateral. Rev. Bras. Cir. Cabeça Pescoço 2008; 37(3):163-5.	Series of cases	Perform perceptual and acoustic evaluation in this group of patients.	All patients had some degree of dysphonia, increased fundamental frequency and altered acoustic measurements.	Voice and swallowing aspects.
28	Costa CC, Chagas JFS, Pascoal MBN, Aquino JLB, Martins LD, Brandi Filho LA.	Técnica endoscópica para colocação secundária de prótese vocal em pacientes laringectomizados. Rev. Bras. Cir. Cabeça Pescoço 2009; 38(1): 41-5.	Series of cases	Present endoscopic bypass technique for this prosthesis.	All patients were rehabilitated with trachea-esophageal prosthesis without complications related to the surgical technique.	Medical treatment aspects.
29	Dedivitis RA, Cruvinel Neto J, Navarro JN.	Resultados da laringectomia horizontal supraglótica. Rev. Bras. Cir. Cabeça Pescoço 2009; 38(1):34-6.	Retrospective	Evaluate the results in a group of consecutive patients submitted to horizontal supraglottic laryngectomy.	There was no case of persistent aspiration. There was no permanent tracheostomy or total laryngectomy for functional reasons.	Medical treatment aspects.
30	Aquino JLB, Camargo JGT, Costa CC, Paschoal MBN, Chagas JFS.	Avaliação dos resultados da cirurgia conservadora do câncer da laringe. Rev. Col. Bras. Cir. 2002; 9(2):99-105	Retrospective	Retrospectively evaluate the results of patients submitted to partial laryngectomy for laryngeal squamous cell carcinoma in HMCP service.	In all total and/or radiotherapy were performed, and two died from the disease. Twenty four patients (84%) had their voice preserved.	Medical treatment aspects and voice and swallowing aspects.
31	Masson ACC, Fouquet ML, Gonçalves AJ.	Umidificador de traqueostoma: influência na secreção e voz de laringectomizados totais. Pró-Fono Revista de Atualização Científica 2008; 20(3):183-8.	Series of cases	To evaluate the influence of using the humidifier tracheostoma (heat moisture exchanger – HME) in the control of lung secretion and esophageal and tracheoesophageal voice quality of patients submitted to total laryngectomy.	No statistically significant difference in esophageal or trachea-esophagic vocal quality parameters. There were statistically significant differences for the variables of cough and forced sputum, during the day, after a period of using HME.	Voice and swallowing aspects.
32	Santana ME, Sawada NO.	Fístula faringocutânea após laringectomia total: Systematic review. Rev Latino-am Enfermagem 2008; 16(4).	Systematic review	Identify the main treatments for pharyngocutaneous fistula after total laryngectomy.	Treatment for pharyngocutaneous fistula is conservative and intensive hygiene care is recommended.	Medical treatment aspects.
33	Sakae FA, Wiikmann C, Imamura R, Tsuji DH, Sennes LU.	Tumor carcinóide atípico de laringe: 3 anos de acompanhamento clínico após tratamento cirúrgico conservador. Arq. Int. Otorrinolaringol. 2007; 11(4):481-4.	Case report	Describe a case of a patient with atypical carcinoid tumor in the larynx without cervical lymph node involvement, who was submitted to a conservative surgical treatment. His progress will be analyzed after three years of clinical follow-up.	No relapse of the lesion after 3 years of clinical follow-up examinations.	Medical treatment aspects.
34	Alencar BLF, Baptistella E, Malaífa O, Czezcko NG, Scopel TF, Trotta F et al.	Estudo experimental de corticóide injetável em microcirurgia laríngea. Int. Otorrinolaringol. / Intl. Arch. Otorhinolaryngol. 2007; 11(4):438-43.	Experimental controlled	Macroscopic evaluation of the presence of synechiae and comparative quantification of the deposition of collagen fibers in the vocal folds after excision of mucous fragment, with or without the use of local steroid injections.	Synechias were not observed in the anterior third of the operated vocal fold in groups studied. Corticosteroids injected in the operated vocal folds did not cause reduction of total collagen deposit.	Medical treatment aspects.
35	Maia Filho PC, Lopes L, Costa ALC, Zdanowski R, Dias FL, Marques A et al.	Uso da cola de fibrina na prevenção de fistula faringocutânea em pacientes submetidos a laringectomia ou orofaringectomia. Rev. Bras. Cir. Cabeça Pescoço 2008; 37(2):100-3.	Prospective	Evaluate the efficacy of fibrin sealant in preventing pharyngocutaneous fistula in patients submitted to total laryngectomy or oropharyngectomy.	Fibrin sealant did not influence the occurrence of fistula.	Medical treatment aspects.

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36	Chone CT, Teixeira C, Andreollo NA, Spina AL, Barcellos IHK, Quagliato E, et al.	Reabilitação fonatória do laringectomizado total: utilização de toxina botulínica na voz tráqueo-esofágica com prótese fonatória. Revista Brasileira De Otorrinolaringologia 2008; 74 (2): 230-4.	Prospective	Analysis of the effectiveness of botulinum toxin (BT), in the rehabilitation of the total laryngectomized patient with tracheoesophageal voice (TEV) with spasm (S) of the pharyngoesophageal segment (PES) without myotomy.	There was a reduction in the pressure to PES of CM after BT injection. Acoustic analysis showed an improvement in the quality of harmonics after treatment. There was voice emission effortlessly and improvement of E after TB use.	Medical treatment aspects and voice and swallowing aspects.
37	Azevedo JF.	Laringectomia e faringolaringectomia near-total a Pearson ampliadas: opções avançadas na preservação cirúrgica da voz. Rev. Bras. Cir. Cabeça Pescoço 2007; 36 (4): 222-5.	Series of cases	Present preliminary results of these new techniques, the LNT and FLNT extended that apply to bilateral tumors involving the larynx.	Evolved with satisfactory phonation and swallowing, showing no signs of tracheo-bronchial aspiration. The average outpatient follow-up was 29.6 months, with no signs of disease relapse.	Medical treatment aspects.
38	Queija DS, Ferreira AS, Portas JG, Dedivitis RA, Pfuertzenreiter Júnior EG, Bohn NP et al.	Avaliação vocal e auto-percepção da desvantagem vocal (VHI) após laringectomia fronto-lateral. Rev. Bras. Cir. Cabeça Pescoço 2007; 36(2) 95-9.	Prospective	de pacientes submetidos à LFL com reconstrução pelo retalho do esternohióideo. Assess vocal characteristics and self-perception of voice handicap in patients submitted to LFL with the reconstruction with sternohyoid flap.	A total of 83% of patients presented dysphonia, 42% severe. The surface roughness rugosidade was present in 100% of the cases. The Perception of vocal disadvantage was mentioned of discrete impact in the three domains and regarding the overall score, worse impact in patients with severe and moderate dysphonia grade was observed.	Medical treatment aspects and voice and swallowing aspects.
39	Dedivitis RA.	Resultados na cirurgia conservadora do carcinoma espinocelular de laringe. Rev. Bras. Cir. Cabeça Pescoço 2007; 37(1):48-50.	Series of cases	Evaluate oncological result and complications in patients submitted to these techniques.	There was edema of the arytenoid in five patients, laryngeal fistula in two; wound infection in one; pneumonia in three; dysphagia in one; and laryngeal stenosis in four.	Medical treatment aspects.
40	Pinto JA, Godoy LBM, Carpes AF, Marquis VB.	Tratamento endoscópico do câncer de laringe com laser de CO: 25 anos de experiência. Rev. Bras. Cir. Cabeça Pescoço 2007; 37(1): 44 – 8.	Retrospective review	Describe the experience in our service of 25 years of endoscopic treatment of laryngeal carcinoma with CO 2 laser.	Of the 188 patients, 172 had glottic carcinoma and 16, supraglottic. In the cases of glottic carcinoma, cordectomies type I, II and III were performed. Supraglottic carcinomas T1 and T2 were submitted to endoscopic treatment. All T3 showed invasion of the pre-epiglottic space and were submitted to supraglottic laryngectomy with neck dissection.	Medical treatment aspects.
41	Vidal MGC, Cervantes O, Abrahão M, Hojajj FC, Amar A.	Fatores prognósticos notratamento do carcinomaepidermóide da laringe: cirurgia conservadora x radical. Revista Brasileira de Otorrinolaringologia 2007; 73(6).	Coorte histórica longitudinal	The evaluation of the subsites in spreading of carcinoma and its influence on the surgical treatment of larynx, in local control and survival rate.	Posterior commissure and subglottic, respectively, were significant for total laryngectomy.	Medical treatment aspects.
42	Farias TP, Dias FL, Sá, GM, Lima RA, Oliveira ALF, Bem Neto AS.	Valor prognóstico da invasão de cartilagem no câncer de laringe. Rev. Col. Bras. Cir. 2004; 31(2): 95-101.	Retrospective	To evaluate the prognostic value of cartilage invasion (thyroid, cricoid) in laryngeal cancer, with respect to disease-free survival.	The presence of metastatic lymphonodes was the factor that presented the most adverse impact on the prognosis related to survival.	Medical treatment aspects.

Study	Authors	Article Title, Journal and Year of Publication	Study Design	Objectives	Main Results	Results Presentation and Discussion
43	Nemr NK, Carvalho MB, Köhle J, Leite GCA, Rapoport A, Szeliga RMS.	Estudo funcional da voz e da deglutição na laringectomia supracricóide. Rev Bras Otorrinolaringol 2007; 73(2):151-5.	Series of cases	Identify the extent and evolution of dysphagia and dysphonia in patients submitted to supracricoid laryngectomy and verify the association of these findings with clinical and surgical variables.	Dysphagia and dysphonia showed an association between them related to the degrees of severity, a greater number of patients had better evolution of dysphagia compared to the evolution of dysphonia. There was no significant statistics in the other associations.	Voice and swallowing aspects.
44	Sartini AL, Fava AS, Faria PH.	Recorrência na área do traqueostoma após laringectomia total. Rev Bras Otorrinolaringol 2007; 73(1):86-92.	Descritivo Retrospectivo	Identify findings of clinical examination of laryngectomized patients related to the possible genesis of this relapse.	The relapse in the tracheostoma area developed in five patients (10.6). There was no statistical correlation between infragottic invasion of the tumor or previous tracheostomy with the relapse in the tracheostoma area.	Medical treatment aspects.
45	Aquino VV, Zago MMF.	O significado das crenças religiosas para um grupo de pacientes oncológicos em reabilitação. Rev Latino-am Enfermagem 2007; 15(1).	Exploratory	Identify how religion influences the survival of a group of cancer patients.	Health professionals pay more attention to the need of taking into account the religiosity of those surviving from cancer when planning and executing healthcare.	Quality of life aspects.
46	Carmo RD, Camargo Z, Nemr K.	Relação entre qualidade de vida e auto-percepção da qualidade vocal de pacientes laringectomizados totais: estudo piloto. Rev CEFAC 2006; 8(4):518-28.	Series of cases	Investigate the indicators of the quality of life in patients who were submitted to total laryngectomy and their relation with the perceptual aspects of vocal quality.	Subjects with high global score have a better perception of their voice and had physiotherapy, being classified by the judging group as speaking well that manage to emit sentences or have a fluent speech, without hesitation.	Quality of life aspects and voice and swallowing aspects.
47	Silva LSL, Pinto MH, Fontão Zago MMF.	Assistência de enfermagem ao laringectomizado no período pós-operatório. Revista Brasileira de Cancerologia 2002; 48(2):213-21.	Series of cases	Identify nursing diagnoses in the late postoperative period of total laryngectomy and develop a plan of nursing interventions for identified diagnoses.	Assistance to the laryngectomized must be done not only in biological dimension but also social and psychological.	Quality of life aspects.
48	Ramos GHA, Oliveira BV, Bredt LC.	Antibiótico-profilaxia em cirurgia de tumores da cabeça e do pescoço: 24 ou 72 horas?. Revista Brasileira de Cancerologia 2002; 48(3): 383-7.	Prospective and randomized	Evaluate change of duration time of prophylactic antibiotics (cefazolin) from 72 to 24 hours and its impact on antibiotic prophylaxis of head and neck surgeries of malignant tumors.	Those included in the 24-hour group (39 cases), 10% evolved with infection and those included in the 72-hour group (54 cases), 22% had infections.	Medical treatment aspects.
49	Hannickel S, Zago MMF, Barbeira CBS, Sawada NO.	O comportamento dos laringectomizados frente à imagem corporal. Revista Brasileira de Cancerologia 2002; 48(3): 333-9.	Series of cases	Evaluate the behavior of total laryngectomized patients facing their body image.	The identified behavior of the patients showed that they look at themselves in the mirror (93%), avoid touching the operated area (73%), feel older (80%), like their appearance (100%), take care of themselves better (73%) and pay more attention to the body (87%).	Quality of life aspects.

Study	Authors	Article Title, Journal and Year of Publication	Study Design	Objectives	Main Results	Results Presentation and Discussion
50	Chone CT, Spina AL, Crespo NA, Gripp FM.	Reabilitação vocal pós- laringectomia total: resultados em longo prazo com prótese fonatória Blom-Singer® de longa permanência. Rev Bras Otorrinolaringol. 2005; 71(4): 504-9.	Retrospective	Evaluate the long-term use of phonatory prosthesis (PP) for vocal rehabilitation after total laryngectomy (TL).	87% of patients with primary x PTE and 13% with secondary. The use of RTX post-op and patient's age did not influence the success in the use of PF, independently of follow up period.	Voice and swallowing aspects.
51	Costa J, Mendes DMC, Lobo JEO, Furuguem ABR, Santos GG.	Anestesia Venosa Total para Laringectomia Parcial em Paciente na 28ª Semana de Gestação. Relato de Caso. Rev Bras Anestesiologia 2005; 55(2):217 -23.	Case report	Show a 28-week pregnant patient, submitted to partial laryngectomy under total intravenous anesthesia with propofol, remifentanyl and cisatracurium.	Total intravenous anesthesia with propofol and remifentanyl provided hemodynamic stability for the mother and foetus, with earlier and smoother return.	Medical treatment aspects.
52	Santana ME, Sawada NO, Sonobe HM, Zago MMF.	A complicação fístula faringocutânea após laringectomia total: uma análise preliminar. Revista Brasileira de Cancerologia 2003; 49(4):239-44.	Literature review	Analyze in the literature the frequency and risk factors that contribute to the formation of pharyngocutaneous fistula.	Risk factors identified for the formation of pharyngo-cutaneous fistula were: pre-op radiotherapy; radical neck dissection; type of material used for suture; pre-op tracheostomy; systemic diseases; tumor staging; trans-op blood transfusion; type of neck drainage; wound infection and formation of hematoma.	Medical treatment aspects.
53	Oliveira FS, Zago MMF.	A experiência do laringectomizado e do familiar em lidar com as consequências da radioterapia. Revista Brasileira de Cancerologia 2003; 49(1):17-25.	Descriptive	Describe the experience of patients submitted to laryngectomy and family in dealing with the reactions of radiotherapy.	The most frequent reactions and considered the worst were skin burning and reaction in oropharynx; some actions used to minimize them are derived from cultural beliefs around the treatment.	Quality of life aspects.
54	Ricz H, Mamede RCM, Ricz LA.	Análise funcional da laringepós-cordectomia, reconstruída com retalho de prega vestibular. Rev Bras Otorrinolaringol. 2004; 70(6):727-33.	Transversal Coorte	Assess laryngeal function in patients submitted to complete cordectomy (type IV), reconstructed with vestibular fold flap.	The results showed that there was no need to keep tracheostomy in late postop, as the rebuilt larynx light was permeable. The protection function was kept in all cases. They also showed that there was a vibratile sound source in 90% of the cases and that in all the vestibular fold participated in its composition.	Medical treatment aspects.
55	Campos GG, Reis JGC, Hadj LA, Araújo ML, Mello PP, Mello LFP.	Laringectomia fronto anterior: técnica de Tucker. Estudo retrospectivo. Rev Bras Otorrinolaringol. 2004; 70(2) 171-6.	Retrospective	Analyze results for oncologic control of 24 patients with glottic carcinoma treated by anterior frontal laryngectomy described by Tucker, comparing them to the literature.	There were no death in postop and the follow up was relatively simple; all patients were decannulized and recovered an effective digestive and arial tract.	Medical treatment aspects.
56	Costa HOO, Duprat AC, Eckley CA, Dutra SRF, Cavalcanti CM.	Análise comparativa de laringectomias parciais com e sem realização de traqueostoma. Rev Bras Otorrinolaringol. 2004;70 (3): 340-3.	Case-control	Compare results of partial laryngectomy with and without tracheostomy.	The group of patients without tracheostomy had advantages regarding the time of surgery, admission and stay of nasoenteral tube.	Medical treatment aspects.

Study	Authors	Article Title, Journal and Year of Publication	Study Design	Objectives	Main Results	Results Presentation and Discussion
57	Dedivitis RA, Guimarães AV.	Uso do grameador para o fechamento da faringe após laringectomia total. Acta Cirúrgica Brasileira 2004; 19(1).	Series of cases	Assess total laryngectomy for surgical salvage after treatment after chemoradiation therapy for advanced squamous carcinoma of the larynx.	The application of stapler lasted less than five minutes. There was no infection, pharyngocutaneous fistula, complaint of dysphagia nor narrowing at X-Ray examination. Patients had success in the phonatory/sound rehabilitation of the prosthesis.	Medical treatment aspects.
58	Dedivitis RA, Guimarães AV.	Carcinoma papilífero de tireóide localmente invasivo. Rev Bras Otorrinolaringol. 2002; 68(5): 687-91.	Retrospective	Retrospective analysis of surgical results.	All started to receive tiroxine in suppressive dose for tireotrofina. Eight patients evolved well, with follow up varying from 10 to 49 months. One had local relapse that was surgically salvaged, with a good result.	Medical treatment aspects.
59	Curioni OA, Carvalho MB, Andrade Sobrinho J, Rapoport A.	Resultados oncológicos da laringectomia parcial no carcinoma glótico inicial. Rev Bras Otorrinolaringol. 2002; 68(5): 673-7.	Retrospective	Results assessment after partial laryngectomy for initial glottic carcinoma.	With surgical salvage, oncological control was reached in 75% of the cases. Severe complications occurred in only 2 patients.	Medical treatment aspects.
60	Costa CC, Chagas JFS, Pascoal MBN, Camargo JGT, Aquino JLB.	Resultado do tratamento cirúrgico das neoplasias do seio piriforme. Rev Bras Otorrinolaringol. 2003; 69(1):29-33.	Retrospective	Assess the evolution of 60 patients with squamous cell carcinoma of the pyriform sinus, considering instituted treatment, complications and estimated 5-year survival.	Of the 60 patients, 43 were submitted to surgical treatment followed by radiotherapy. The most frequent postop complication was cutaneous fistula.	Medical treatment aspects.
61	Kruschewsky LS, Freitas LCC, Nakamura E, Mamede RCM, Mello-Filho FV, Rics L.	Complicações decorrentes do uso de prótese vocal. Acta Cirúrgica Brasileira 2002; 17(3).	Series of cases	Assess complications with the use of voice prosthesis and relate them to clinical factors and type of prosthesis.	There were registered: saliva leakage and/or pharynx diet for trachea, fungal infection, absence of the function of prosthesis and these findings were quantified evaluating the effects of radiotherapy and the type of prosthesis used.	Medical treatment aspects.
62	Moreno AB, Lopes CS.	Avaliação da qualidade de vida em pacientes laringectomizados: uma revisão sistemática. Cad. Saúde Pública 2002; 18(1):81-92.	Systematic review	Assess the relationship between quality of life and laryngectomy.	It was verified that the relationship between quality of life and laryngectomy, in the form presented in the articles selected, is still far from the multi-dimension approach of the construct quality of life, according to recommended by WHOQOL.	Quality of life aspects.
63	Zago MMF, Pedrolo FT.	O enfrentamento dos familiares à imagem corporal alterada do laringectomizado. Revista Brasileira de Cancerologia 2002; 48(1): 49-56.	Descriptive	Identify the process of coping with altered body image of laryngectomized patients by family members, who participate in the GARPO-Support Group and Rehabilitation of Patients with Ostomy, in the city of Ribeirão Preto.	We identified that relatives use strategies focused on emotions and on problems to deal with the patient's altered body image. These strategies are dynamic and have the objective of protecting the laryngectomized themselves and to have stability in their family life.	Quality of life aspects.

Study	Authors	Article Title, Journal and Year of Publication	Study Design	Objectives	Main Results	Results Presentation and Discussion
64	Goiato MC, Fernandes AUR, Santos DM, Conrado Neto S.	Perfil de pacientes acometidos por câncer de laringe atendidos no centro de oncologia bucal – UNESP. Revista Odonto Ciência 2006; 21(51).	Records review	Identify data related to laryngeal cancer among patients treated by the Centro de Oncologia Bucal of Dentistry School at Araçatuba – UNESP, in the period 1991-2003.	The largest number of laryngeal cancer cases occurred in the glottic region and needed surgical intervention (total or partial laryngectomy). The frequency of laryngeal cancer was higher in smokers and more common between 50 and 69 years.	Medical treatment aspects.
65	Guedes MTS, Nascimento MAL, Figueiredo NMA, Ghidini Junior R.	Transpondo a barreira do silêncio e da solidão do cliente laringectomizado através das ações de enfermagem. Esc Anna Nery R Enferm. 2004; 8(3):464-9.	Experience report	Describe nursing actions developed with the laryngectomized clients in a postoperative outpatient service.	The fact to dispense specific care to a silent and mutilated body, finding alternatives to break the patient's silence, contributed to the social reintegration of the laryngectomized client, by the recovery of his/her self-esteem.	Quality of life aspects.
66	Mourão LF, Servilha EAM, Mercuri APS, Beilke HMB, Xavier PE.	Grupo terapêutico-fonoaudiológico desenvolvido junto a laringectomizados totais: uma experiência em situação de Clínica-Escola. Distúrbios da Comunicação 2006; 18(1):51-61.	Series of cases	Present an experience with a total laryngectomized group of patients in a situation of Speech School-Clinic.	Working in group is a very interesting alternative for any subject with communication alterations, of any origin; however, its importance is much bigger in the case of total laryngectomized patients.	Voice and swallowing aspects.
67	Farias TP, Dias JA, Dias FL, Costa ALC, Silva FHF, Martins MR et al.	Autonomização gástrica prévia a faringolaringoesofagectomia total minimamente invasiva com pull-up gástrico para tratamento de câncer de esôfago cervical. Rev. Bras. Cir. Cabeça Pescoço 2007; 36(1):49 – 52.	Series of cases	Present two cases of total laryngo-pharyngo-esophagectomy minimally invasive salvage and gastric pull-up associated with an innovation in technique, with production of the gastric tube, previously autonomized.	The innovation of early gastric tube may have improved distal irrigation of gastric tube, what may be corroborated for the inexistence of fistula, however, it is early to guarantee such statement.	Medical treatment aspects.
68	Barros APB, Portas JG, Queija DS, Lehn CN, Deditivis RA.	Autopercepção da desvantagem vocal (VHI) e qualidade de vida relacionada à deglutição (SWAL-QOL) de pacientes laringectomizados totais. Rev. Bras. Cir. Cabeça Pescoço 2007; 36(1): 32 – 7.	Prospective	Assess the vocal handicap and swallowing-related quality of life of totally laryngectomized patients.	Regarding vocal disadvantage the average points were 22 for functional domínio, 17 for the physical, 14.3 for the emotional and 53.5 for the global.	Quality of life aspects and voice and swallowing aspects.
69	Oliveira IB, Costa CC, Chagas JFS, Rochetti ECG, Oliveira LO.	Comunicação oral de laringectomizados com prótese traqueoesofágica: análise comparativa pré e pós-treino. Pró-Fono Revista de Atualização Científica 2005; 17(2).	Series of cases	Compare the quality of oral communication of laryngectomized patients with tracheoesophageal prosthesis before and after speech training.	It was observed significant improvement (Binomial Test) in the aspects evaluated.	Voice and swallowing aspects.
70	Serrano DMS, Suehara AB, Fouquet ML, Gonçalves AJ.	Uso do som crepitante grave (modelo vocal fry) nas Laringectomias Parciais Verticais. Distúrbios da Comunicação 2005; 17(1): 19-25.	Series of cases	Compare the configuration of the remaining larynx before and after crackling phonation exercise in patients submitted to this surgical modality.	There was a small vibration of the structures and ventricular bands, antero-posterior and medial constriction. After, more vibration and approximation of the structures and antero-posterior constriction.	Medical treatment aspects.
71	Garrido CM, Liesa RF, Varela HV, Gálvez MJN.	Study of laryngopharyngeal reflux using pH-metering in immediate post-op of laryngectomized patients. Acta Otorrinolaringol Esp 2007, 57: 284-9.	Prospective	Evaluate the incidence and characteristics of LPR and GER in laryngectomized patients by two channels pH, monitored 48 hours after surgery.	RLF incidence is between 30 and 40% and RGE, 40%.	Medical treatment aspects.

Study	Authors	Article Title, Journal and Year of Publication	Study Design	Objectives	Main Results	Results Presentation and Discussion
72	Rosique M, Ramón JL, Canteras, M, Rosique.	Discriminant analyses applied to the formants of the castilian vowels in the thephonation with prosthesis and esophageal voice after total laryngectomy. Acta Otorrinolaringol Esp. 2003; 54: 361-6.	Case-control	Analyze whether there are significant differences between certain quantitative variables of acoustic voice parameters in three samples of individuals, using, discriminating analysis.	The method of discriminant analysis is valid to differentiate the variables used between the three groups, thus, have some characteristics of the acoustic point of view. The study allowed us to affirm that no tracheoesophageal voice is close to normal esophageal speech.	Voice and swallowing aspects.

Figure 2 – List of studied articles published in LILACS and Scielo on the treatment of larynx cancer

The articles were distributed from the point of view of the result studied: 39 articles included medical treatment aspects, 14 quality of life, 14 on voice and swallowing and 12 articles with more than one theme.

Speech therapy is included in publications on the treatment of laryngeal cancer, in studies dealing with rehabilitation of functions related to communications (in this case, especially oral communication)²²⁻²⁷, evaluation of quality of life^{9,12,25,28-30}, swallowing rehabilitation^{9,28,30} and alterations of smell and taste³¹.

During the research it was also verified a considerable percentage of publications from the nursing sector related with the bio-psycho-social aspects directly linked to the rehabilitation and/or postoperative handling/care which the patients must be submitted to³²⁻³⁹.

Few studies were found, from the psychology sector³⁶, and these, most of a descriptive character, referring to psycho-social aspects involved in the rehabilitation of patients affected by laryngeal cancer, a characteristic that was evident in this research and that are similar to the studies from the nursing sector³²⁻³⁵, as described above.

It was noticed, mainly in the last five years, the concern of the authors⁵⁻³⁶ to verify the association between quality of life/voice and quality of life/swallowing. It was observed also the interest in investigating the correlations between conservative surgical techniques and radical surgeries in obtaining positive prognostics, as well as the concern with the bio-psycho-social aspects of each patient, fact that points to the increase in the interest of professionals to promote a holistic treatment considering the various aspects involved in the rehabilitation of patients exposed to such condition.

The literature studied⁵⁻³⁶ points to the importance of multidisciplinary interventions in the prevention and treatment of laryngeal cancer and highlights the

importance of considering the patient's point of view when developing rehabilitation strategies, however, no article mentioned the multidisciplinary approach theme as their main focus.

Nevertheless, this review suggests some need regarding those publications that deal with the treatment of laryngeal cancer. From the analysis done it can be observed that the majority of papers are of a descriptive nature.

To analyze the effectiveness of the interventions it would be relevant that analytical studies were conducted and published, especially intervention studies, especially randomized clinical studies, considering the golden standard for the practice based on evidence regarding the attainment of standardized techniques of treatment, be it for rehabilitation using surgical techniques or not³⁷.

Among the intervention studies published it was observed that the recommendations for planning and publication of intervention studies are not always considered, which would result in an improvement in the quality of articles published as well as qualifying the available information³⁷.

An aspect that stood out in the literature research was the absence of mentioning the complications and adverse reactions, side effects and safety of treatments implemented both in the medical field as the techniques of voice rehabilitation. The mention of complications resulting from interventions or even adverse reactions is a relevant aspect in intervention studies of any nature, as normally these are present in a higher or lower rate in any type of intervention.

■ CONCLUSION

The characteristics of the publications related to the treatment of laryngeal cancer are mostly the result of medical and speech therapy areas, and

there is a considerable number of publications in Nursing and few in Psychology.

From this research it is possible to verify the absence to mention adverse reactions, side effects and safety of treatments implemented both in the medical area and techniques of speech therapy rehabilitation, which use to be present in a higher or lower rate in any type of intervention.

There is space for the development of studies to verify standardized techniques of treatment of laryngeal cancer in Brazil with the increase of analytical studies and intervention based on randomized clinical studies, especially considering

guidelines such as CONSORT, STROBE and GRADE for planning and publication³⁷⁻⁴⁰.

The identification of characteristics and gaps in bibliographic productions on the theme contributes for the researchers of speech therapy disorders related to laryngeal cancer direct their studies to the solution of these demands. From this it will be possible to improve the strategies for the treatment already in existence and elaborate standardized techniques that contemplate the needs of the patient, contributing with subsidies that qualify the practice based on scientific evidence.

RESUMO

Este estudo tem como objetivo analisar as características da produção bibliográfica científica sobre o tratamento do câncer de laringe nos últimos dez anos. Foram seguidos os preceitos do *Cochrane Handbook*, que envolveu a formulação da questão a ser investigada, a localização, a seleção dos estudos e a avaliação crítica dos artigos. Os artigos publicados entre 2002 e 2011 foram selecionados por meio das bases de dados LILACS e SciELO, utilizando-se o descritor laringect\$ e na base de dados PubMed, utilizando-se o descritor laringect*. Analisaram-se os textos completos, potencialmente relevantes para a revisão, utilizando-se um formulário padronizado, quando os seguintes dados foram coletados: objetivos, desenho da pesquisa, resultados encontrados e discussão sobre o tratamento em câncer de laringe. Inicialmente foram identificados 299 estudos. Após a revisão dos títulos e resumos, consideração dos critérios de inclusão e exclusão, verificação da coerência com a temática pesquisada e eliminação dos estudos que estavam concomitantemente em mais de uma base de dados, 72 foram efetivamente analisados por referirem nos descritores e/ou nos resumos o tema câncer de laringe. A partir desta pesquisa, é possível verificar lacunas e oportunidades para o desenvolvimento de estudos que verifiquem técnicas padronizadas de tratamento do câncer de laringe com o aumento de estudos analíticos e de intervenção baseados em ensaios clínicos randomizados, especialmente considerando diretrizes como CONSORT, STROBE e GRADE para o seu planejamento e publicação.

DESCRITORES: Laringectomia; Neoplasias Laríngeas; Traqueostomia; Terapêutica; Revisão; Complicações

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