

**Supplementary Table S1** Table of studies included in the systematic review

Author	Journal	Publication year	Number of cases
Ahrari et al <sup>13</sup>	Journal of Neurological Surgery Reports	2015	1
Alzahrani et al <sup>15</sup>	Case Reports in Otolaryngology Print	2011	1
Amaral et al <sup>16</sup>	Medicina Oral Patología Oral y Cirugía Bucal	2008	1
Avitia and Osborne <sup>17</sup>	Ear Nose & Throat Journal	2007	1
Barosa et al <sup>18</sup>	European Annals of Otorhinolaryngology, Head and Neck Diseases	2014	5
Bone et al <sup>19</sup>	Annals of Otology, Rhinology, and Laryngology	1973	1
Bradley et al <sup>20</sup>	Journal Laryngology and Otology	1988	1
Bundgaard et al <sup>21</sup>	Archive of Otorhinolaryngology	1988	1
Chaudhari et al <sup>22</sup>	Bombay Hospital Journal	2015	1
Chennupati et al <sup>23</sup>	International Journal of Pediatric Otorhinolaryngology	2008	1
Donaldson et al <sup>24</sup>	International Journal of Pediatric Dental	2004	1
Echchikhi et al <sup>11</sup>	Journal of Medical Case Reports	2016	1
Epley et al <sup>25</sup>	Ophthalmic Plastic & Reconstructive Surgery	1998	1
Erdur et al <sup>26</sup>	Journal of Craniofacial Surgery	2018	1
Gadwal et al <sup>27</sup>	Cancer	2001	3
Galera-Ruiz et al <sup>28</sup>	Auris Nasus Larynx	2001	1
Gipolous et al <sup>29</sup>	Journal de radiologie, d'électrologie et archives d'électricité médicale	1975	1
Gonzalez et al <sup>30</sup>	Journal of Radiology Case Reports	2016	1
Gupta et al <sup>31</sup>	Annals of Otology, Rhinology, and Laryngology	1990	1
Ha et al <sup>32</sup>	Laryngoscope	1999	3
Harris et al <sup>33</sup>	Laryngoscope	1963	2
Ito et al <sup>34</sup>	Neuro-Oncology	2010	2
Kachhara et al <sup>35</sup>	Neurologia Medico-Chirurgica (Tokyo)	1999	1
Khosla et al <sup>36</sup>	Indian Pediatrics	1993	1
Kohanawa et al <sup>37</sup>	Auris Nasus Larynx	2005	1
Lee et al <sup>38</sup>	British Journal of Ophthalmology	2014	1
Lee et al <sup>39</sup>	Singapore medical journal	2001	1
Malalis et al <sup>40</sup>	Neuro-Ophthalmology	2013	1
Mark et al <sup>41</sup>	Archives of Otolaryngology–Head & Neck Surgery	1991	3
Mathkour et al <sup>42</sup>	World Neurosurgery	2016	1
Oakley et al <sup>43</sup>	Ear, Nose & Throat Journal	2011	1
Oda et al <sup>7</sup>	Head & Neck: Journal for the Sciences and Specialties of the Head and Neck	1997	3
Okinaka and Takahashi <sup>44</sup>	Journal of Oral and Maxillofacial Surgery	1997	1
Papsidero et al <sup>45</sup>	Otolaryngology Head and Neck Surgery	1982	1
Patel et al <sup>63</sup>	Cancer	2011	4
Park et al <sup>46</sup>	Skeletal Radiology	2004	1
Park et al <sup>47</sup>	Journal of Oral and Maxillofacial Surgery	2014	1
Park et al <sup>48</sup>	Skeletal Radiology	2003	1
Santos-Silva et al <sup>49</sup>	American Journal of Orthodontics and Dentofacial Orthopedics	2011	1
Sargi et al <sup>50</sup>	Otolaryngology Head and Neck Surgery	2008	1
Shahid et al <sup>51</sup>	Medical Journal of Malaysia	2007	1
Sheikh et al <sup>52</sup>	Journal of Clinical and Experimental Dentistry	2010	1
Smith et al <sup>53</sup>	International Journal of Radiation Oncology Biology Physics	1989	4
Smoron et al <sup>54</sup>	Sarcoma	1999	1

(Continued)

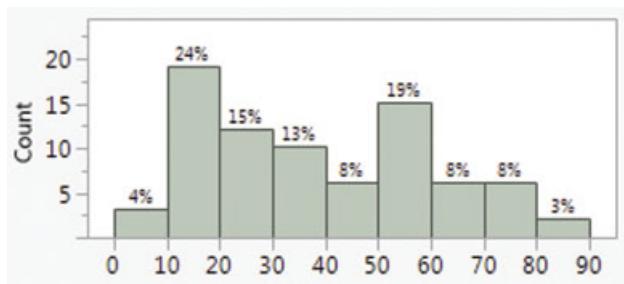
**Supplementary Table S1** (*Continued*)

Author	Journal	Publication year	Number of cases
Stavrakas et al <sup>55</sup>	Journal of Laryngology and Otology	2016	2
Tseng et al <sup>56</sup>	Archives of Otolaryngology–Head & Neck Surgery	2005	1
Uysal et al <sup>57</sup>	Pediatric Hematology Oncology	2001	1
Vlychou et al <sup>58</sup>	Skeletal Radiology	2007	1
Wei-wei et al <sup>59</sup>	Laryngoscope	2005	2
Wolfowitz <sup>60</sup>	Journal of Laryngology Otology	1973	1
Yamada et al <sup>61</sup>	Journal of Medical Case Reports	2013	1
Yamaguchi et al <sup>62</sup>	Clinical Oral Investigation	2004	1
Yip et al <sup>14</sup>	Ophthalmology	2003	1

**Supplementary Table S2** The institute of health economics quality appraisal checklist for case series

	Barosa <sup>18</sup>	Gadwal <sup>27</sup>	Ha <sup>32</sup>	Mark <sup>41</sup>	Harris <sup>33</sup>	Ito <sup>34</sup>	Oda <sup>7</sup>	Patel <sup>63</sup>	Smith <sup>74</sup>	Stavrakas <sup>55</sup>	Weiwei <sup>59</sup>
Study objective											
1. Was the hypothesis/aim/objective of the study clearly stated?	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y
2. Was the study conducted prospectively?	N	N	N	N	N	Y	Y	N	N	N	N
3. Were the cases collected in more than one center?	N	Y	N	P	P	P	Y	N	N	N	N
4. Were patients recruited consecutively?	U	U	U	Y	Y	U	Y	Y	Y	Y	Y
Study design											
5. Were the characteristics of the patients included in the study described?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6. Were the eligibility criteria (i.e., inclusion and exclusion criteria) for entry into the study clearly stated?	Y	Y	P	P	P	P	Y	Y	P	P	Y
7. Did patients enter the study at a similar point in the disease?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Intervention and cointervention											
8. Was the intervention of interest clearly described?	Y	Y	P	P	Y	P	Y	Y	Y	P	Y
9. Were additional interventions (cointerventions) clearly described?	Y	Y	P	P	P	N	P	Y	P	P	P
Outcome measures											
10. Were relevant outcome measures established a priori?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
11. Were outcome assessors blinded to the intervention that patients received?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
12. Were the relevant outcomes measured using appropriate objective/subjective methods?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
13. Were the relevant outcome measures made before and after the intervention?	Y	Y	Y	Y	Y	P	Y	Y	Y	Y	Y
Statistical analysis											
14. Were the statistical tests used to assess the relevant outcomes appropriate?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Results and conclusions											
15. Was follow-up long enough for important events and outcomes to occur?	U	Y	U	U	N	Y	N	Y	Y	N	Y
16. Were losses to follow-up reported?	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
17. Did the study provided estimates of random variability in the data analysis of relevant outcomes?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
18. Were the adverse events reported?	N	N	N	N	Y	Y	N	N	N	N	Y
19. Were the conclusions of the study supported by the results?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
20. Were both competing interests and sources of support for the study reported?	Y	P	N	N	N	N	Y	N	P	N	N

Abbreviations: N, no; P/U, partial/unclear; Y, yes.



**Supplementary Fig. S1** Histogram of age showing bimodal age distribution.