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Genetic and Embryological Basis of Congenital Cervicofacial Dermatological Markers in Neonates

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ABSTRACT

Background: In neonates, multiple congenital skin lesions in the cervicofacial region act as "surface markers" of vascular, malformation, or syndromic anomalies with impact on the airway, hearing, and deep cervical structures, core areas of otorhinolaryngology. **Objective:** To synthesize recent evidence on cervicofacial congenital dermatological manifestations relevant to ENT, proposing a diagnostic approach and providing a quantitative synthesis of recent clinical series. **Methodology:** Rapid review (2021–2025) in biomedical sources, with a report aligned with PRISMA 2020 (publication 2021). Reviews, guidelines, surgical series, and retrospective studies with the pediatric population (neonatal/early childhood emphasis) and cervicofacial location were included. Clinical variables, ENT "red flags", and quantitative indicators (proportions and 95% CI by Wilson) were extracted. **Results:** The evidence converges on four groups of high ENT relevance: (1) vascular anomalies (infantile hemangioma, capillary and lymphatic malformations), (2) lateral skin pits/sinuses of the neck (gill anomalies), (3) congenital hamartomas/nevi (melanocytic and epidermal) with syndromic potential, and (4) skin/tissue defects (aplasia cutis). In a cohort of head and neck lymphatic malformation (n=94), the excellent/good response was 80.9% (95% CI 71.7–87.5) and frequent sites were reported (head 63.8%; neck 43.6%; non-exclusive categories). In a series of second-arch gill anomalies (n=52), 67.3% had cutaneous fossite or lateral drainage from birth. Conclusions: For ENT, cervicofacial dermatological inspection in the neonate guides risk of airway compromise, need for imaging, screenings (e.g., glaucoma/neurology in high-risk facial capillary malformations), and early referral to vascular anomaly teams.

Keywords: *neonate; congenital skin lesions; vascular anomalies; lymphatic malformation*

INTRODUCTION

Congenital dermatological manifestations are one of the most frequent clinical findings in the neonatal period and, in many cases, represent benign variants of skin development. However, when these lesions are located in the cervicofacial region, they acquire additional diagnostic value by functioning as external markers of deep structural, vascular or syndromic alterations with a direct impact on organs and functions of otorhinolaryngological interest, such as the upper airway, the middle and inner ear, the oral cavity, the pharynx and cervical structures (Fanous et al., 2021; Nunes et al., 2022). In this context, early recognition and correct interpretation of these cutaneous manifestations are essential for the prevention of functional complications and for the planning of a timely multidisciplinary approach.

In the last five years, the literature has emphasized that a significant percentage of congenital skin lesions in the head and neck should not be evaluated solely from dermatology, but as part of a broader clinical spectrum involving pediatric otolaryngology, radiology, pediatric surgery, and clinical genetics (Boccara et al., 2021; Yang et al., 2024). This integrated vision is especially relevant in neonates, since the anatomical and functional immaturity of the airway and auditory system increases vulnerability to cervical masses, vascular anomalies or associated congenital malformations.

Vascular anomalies, particularly infantile hemangiomas and vascular and lymphatic malformations, represent one of the most relevant groups of cervicofacial congenital dermatological manifestations. The continuous updating of the classification of the International Society for the Study of Vascular Anomalies (ISSVA) has allowed a better differentiation between vascular tumors and malformations, which has direct diagnostic and therapeutic implications for otorhinolaryngological practice, especially in the evaluation of the risk of upper airway compromise and alterations in swallowing and phonation (ISSVA, 2025; Vikkula et al., 2025). Recent studies highlight that infantile hemangiomas located in specific facial segments, such as the so-called "beard" distribution, can be associated with subglottic hemangiomas, a potentially serious situation if not identified early (Krowchuk et al., 2022; Orphanet, 2024).

Likewise, cervicofacial lymphatic malformations, which often initially manifest as subtle skin alterations or as progressively growing masses, have been extensively studied in recent pediatric cohorts, demonstrating their high prevalence in the head and neck and their functional impact on critical otorhinolaryngological structures (Yang et al., 2024; Kaji et al., 2024). Early identification of associated skin signs allows the ENT specialist to anticipate respiratory complications and plan less invasive and more effective therapeutic strategies.

On the other hand, congenital skin pits and fistulous tracts visible in the lateral skin of the neck are classic manifestations of gill anomalies, which may remain underdiagnosed until the appearance of recurrent infections or cervical abscesses. Recent evidence highlights that the presence of these skin findings from birth is a key element in guiding early diagnosis and avoiding inappropriate procedures, a role in which otolaryngology plays a central role (Chen et al., 2023; Yu et al., 2025).

In addition, other congenital dermatological entities such as congenital melanocytic nevi, epidermal nevi and congenital cutis aplasia, when located in the cervicofacial region, may be associated with neurocutaneous syndromes, craniofacial alterations or deep structural defects that require specialized otorhinolaryngological evaluation (Recalcati et al., 2024; Frontiers in Pediatrics, 2023). In these cases, the skin acts as a "diagnostic window" into potential neurological, auditory, or airway compromises.

In this scenario, expanding knowledge about congenital cervicofacial dermatological manifestations and their correlation with ENT pathologies is essential to improve the clinician's diagnostic capacity, optimize decision-making and reduce morbidity associated with late diagnoses. Therefore, the objective of this article is to comprehensively analyze the main congenital dermatological manifestations of the cervicofacial region in neonates and to discuss their specific diagnostic implications for otorhinolaryngological practice, in the light of the most recent scientific evidence available.

THEORETICAL FRAMEWORK

The theoretical framework of congenital dermatological manifestations of the cervicofacial region in neonates must be approached from an integrative perspective, in which the skin is understood as a sentinel organ capable of revealing profound alterations in embryonic development with relevant functional repercussions for paediatric otorhinolaryngology. Recent evidence agrees that a correct semiological interpretation of these skin lesions allows inferring the nature of the underlying pathology, its possible

evolution, and the risk of involvement of critical structures such as the upper airway, the ear, the oral cavity, and the large cervical vessels (Fanous et al., 2021; Nunes et al., 2022).

Embryological and anatomical foundations of the cervicofacial region

During embryonic development, the cervicofacial region is formed from a complex interaction between ectoderm, mesoderm, and endoderm, particularly through the gill arches, neural crests, and primitive vascular system. Alterations in these processes can manifest simultaneously in the skin and in deep structures, which explains the frequent association between congenital skin lesions and otorhinolaryngological abnormalities (Fanous et al., 2021; Springer, 2025). From a clinical point of view, this embryological basis justifies that apparently superficial lesions, such as a lateral cutaneous pit in the neck or a facial vascular spot, are considered indicators of possible fistulous tracts, cervical cysts, deep vascular malformations or neurocutaneous syndromes (Chen et al., 2023; Jagtap et al., 2024).

Contemporary classification of cervicofacial congenital dermatological lesions

Recent literature proposes a functional classification of cervicofacial congenital dermatological manifestations with clinical utility for ENT practice, based on their origin and biological behavior (Maguiness & Frieden, 2025; ISSVA, 2025).

Table 1. Functional Classification of Cervicofacial Congenital Dermatological Manifestations Relevant to ENT

Group	Type of injury	Frequent examples	ENT Relevance
Vascular anomalies	Vascular tumors	Infantile hemangioma	Risk of airway, vision, and hearing compromise
Vascular anomalies	Vascular malformations	Capillary, venous, lymphatic	Dysphagia, dysphonia, cervicofacial deformity
Alterations in gill development	Cysts, breasts, and fistulas	Second gill arch	Recurrent cervical infections
Congenital Nevi	Melanocytic and epidermal	Congenital melanocytic nevus	Oncological and syndromic risk
Skin defects	Congenital skin loss	Aplasia cutis	Risk of bleeding and infection

Source: Authors' elaboration based on Fanous et al. (2021), ISSVA (2025) and Maguiness and Frieden (2025).

Cervicofacial vascular anomalies and their otorhinolaryngological impact

Vascular anomalies are one of the most studied groups in the last five years due to their high prevalence and improvements in their classification and treatment. The updated ISSVA classification clearly differentiates between vascular tumors, characterized by endothelial proliferation, and vascular malformations, which correspond to structural errors of vascular development (ISSVA, 2025; Vikkula et al., 2025).

Infantile hemangioma

Infantile hemangioma is the most common benign vascular tumor in childhood and has a clear predilection for the cervicofacial region. Recent studies highlight that up to 60% of infantile hemangiomas are located in the head and neck, which increases their relevance for otolaryngology (Maguiness & Frieden, 2025).
The current literature underlines that segmental localization, especially in the mandibular or "beard" region, is associated with an increased risk of subglottic hemangiomas and respiratory compromise, a situation that requires early ENT evaluation even in the absence of initial symptoms (Krowchuk et al., 2022; Orphanet, 2024).

Lymphatic malformations

Cervicofacial lymphatic malformations are low-flow congenital lesions that may present as soft masses, with or without obvious cutaneous manifestations at birth. Recent clinical series confirm that the head and neck represent the most frequent location, with direct implications for swallowing, phonation, and airway patency (Yang et al., 2024; Kaji et al., 2024).

Table 2. Clinical manifestations and ENT impact of cervicofacial lymphatic malformations

Predominant location	Clinical manifestation	ENT Involvement
Tongue and mouth floor	Macroglosia, babeo	Dysphagia, dysarthria
Pharynx	Stridor, apnea	Risk of airborne obstruction
Cervical region	Masa visible o palpable	Deformity and functional compromise

Source: adapted from Yang et al. (2024) and Kaji et al. (2024).

Cutaneous manifestations of gill anomalies

Branchial arch abnormalities are a common cause of congenital cervical masses. In recent years, retrospective studies have highlighted that the presence of a congenital skin fossite or a small draining hole in the lateral neck is one of the earliest and most specific clinical signs of these abnormalities (Chen et al., 2023; Yu et al., 2025).

From the ENT approach, the identification of these dermatological manifestations makes it possible to anticipate deep pathways close to vasculonervous structures, optimizing surgical planning and reducing postoperative complications (Fanous et al., 2021; Yu et al., 2025).

Congenital nevi and associated syndromes in the cervicofacial region

Congenital melanocytic nevi and epidermal nevi located in the head and neck have been the object of renewed interest due to their association with neurocutaneous syndromes and their functional and aesthetic impact. Recent reviews highlight that, in addition to the risk of malignant transformation, these nevi may coexist with neurological, bone, or sensory alterations that require interdisciplinary evaluation, including otolaryngological assessment (Recalcati et al., 2024; Alikhan et al., 2022).

Aplasia cutis congenita and its relationship with deep malformations

Congenital aplasia cutis is a rare defect characterized by the localized absence of skin at birth. Although it mainly affects the scalp, its extension to the cervicofacial region can be associated with bone and dural defects, with a risk of serious complications (Frontiers in Pediatrics, 2023; UpToDate, 2025). In these cases, the ENT specialist plays a key role in the comprehensive evaluation, particularly when there are concomitant alterations of the airway or craniofacial structures.

METHODOLOGY

Study design

An integrative narrative review study with descriptive and quantitative synthesis was developed, aimed at analyzing the congenital dermatological manifestations of the cervicofacial region in neonates and their diagnostic implications for otorhinolaryngological practice. This methodological approach is appropriate when the objective is to integrate clinical, embryological, and diagnostic evidence from different types of studies, without being restricted to a single experimental design, allowing a broad and clinically applicable vision (Page et al., 2021; Snyder, 2019). The methodological structure was aligned with the recommendations of the PRISMA 2020 Statement, updated and in force in the last five years, especially with regard to the transparency of the process of searching, selecting and analyzing the literature (Page et al., 2021; PRISMA Statement, 2025).

Bibliographic search strategy

The systematic literature search was conducted between January 2021 and December 2025 in the most relevant biomedical databases for the areas of pediatric dermatology and otolaryngology, including:

- PubMed/MEDLINE
- Scopus
- Web of Science
- ScienceDirect
- Google Scholar (as a supplemental source for grey literature and clinical guidelines)

Controlled descriptors (MeSH) and free terms were used using AND/OR boolean operators, adapted to each database. The main terms used were: *congenital skin lesions*, *cervicofacial region*, *neonate*, *vascular anomalies*, *infantile hemangioma*, *lymphatic malformation*, *branchial cleft anomalies*, *otolaryngology*, and *head and neck*.

Inclusion and exclusion criteria

The selection criteria were previously defined to ensure the quality and clinical relevance of the evidence analyzed, following current methodological recommendations for integrative reviews (Page et al., 2021; Aromataris & Pearson, 2020).

Table 3: Study Inclusion and Exclusion Criteria

Inclusion criteria	Exclusion Criteria
Publications between 2021–2025	Studies prior to 2021
Original articles, systematic and narrative reviews, clinical guidelines	Letters to the editor without clinical data
Early neonatal or pediatric population	Studies exclusively in adults
Congenital cervicofacial skin lesions	Acquired skin lesions
Evidence with ENT implications	Studies unrelated to head and neck

Source: Authors' elaboration based on Page et al. (2021) and Aromataris and Pearson (2020).

Study selection process

The selection process was carried out in three phases:

1. **Screening by title and abstract**, to rule out irrelevant studies.
2. **Full-text review**, assessing compliance with inclusion criteria.
3. **Final selection**, prioritizing studies with greater methodological clarity and clinical applicability for otorhinolaryngological practice.

This process minimized selection bias and improved the reproducibility of the study, in accordance with current standards of scientific review (Page et al., 2021; Tricco et al., 2022).

Information extraction and systematization

The following variables were extracted from the selected studies in a standardized way:

- Type of congenital dermatological manifestation
- Specific cervicofacial location
- Association with ENT alterations
- Diagnostic methods used (clinical, imaging, endoscopic)
- Main clinical and therapeutic implications

The information was organized in comparative matrices to facilitate cross-analysis between clinical entities and their otorhinolaryngological impact.

Table 4: Variables analysed in the included studies

Dimension	Variables
Clinic	Type of lesion, age at diagnosis, skin signs
Anatomical	Facial, cervical, oral, or pharyngeal region
Diagnosis	Physical exam, ultrasound, MRI

ENT	Airway compromise, hearing, swallowing
Therapeutics	Observation, medical, surgical management

Source: Authors.

Quantitative analysis and synthesis of results

When studies provided numerical data (frequencies, proportions, or therapeutic outcomes), a descriptive quantitative synthesis was performed, calculating proportions and measures of central tendency. To estimate the accuracy of the results, 95% confidence intervals (95% CI) were used using the Wilson method, recommended for observational studies with moderate sample sizes (Brown et al., 2001; Page et al., 2021). The formulas used were:

Proportion:

$$\hat{p} = \frac{x}{n}$$

95% confidence interval (Wilson):

$$IC_{95\%} = \frac{\hat{p} + \frac{z^2}{2n} \pm z\sqrt{\frac{\hat{p}(1-\hat{p})}{n} + \frac{z^2}{4n^2}}}{1 + \frac{z^2}{n}}$$

where z=1.96.

This analysis allowed the frequency of certain cutaneous manifestations and their association with ENT involvement to be quantitatively contextualized, without performing formal meta-analysis due to the heterogeneity of the designs and populations studied (Tricco et al., 2022).

Ethical considerations

As it was a review of published scientific literature, the study did not require approval by a research ethics committee or informed consent, in accordance with current international standards for secondary studies. However, the principles of scientific integrity, correct citation, and responsible use of information were respected (World Medical Association, 2022).

RESULTS

The results are structured in three levels: (1) global characterization of cervicofacial congenital dermatological manifestations relevant to otorhinolaryngological practice, (2) quantitative analysis of entities with greater ENT impact from recent clinical series, and (3) diagnostic integration oriented to clinical decision-making in neonates.

General distribution of cervicofacial congenital dermatological manifestations

Based on the review of the literature published between 2021 and 2025, it was identified that the congenital dermatological manifestations of the cervicofacial region with the greatest otorhinolaryngological impact correspond mainly to vascular anomalies, followed by gill developmental alterations, congenital nevi and structural skin defects. This distribution coincides with recent studies of congenital head and neck masses in the pediatric population, where more than 65% of final diagnoses have a visible cutaneous correlate at birth or in the first weeks of life (Fanous et al., 2021; Nunes et al., 2022).

Table 5: Relative Distribution of Congenital Cervicofacial Dermatological Manifestations with ENT Implications (Literature Synthesis 2021–2025)

Diagnostic group	Reported Relative Frequency	Main ENT involvement
Vascular anomalies	High (≈50%–60%)	Airway compromise, swallowing, phonation
Gill anomalies	Moderate (≈20–25%)	Cervical infections, deep tracts
Congenital Nevi	Moderate-low (≈10–15%)	Syndromic and reconstructive risk
Congenital skin defects	Low (<10%)	Infectious and structural risk

Source: Authors' elaboration based on Fanous et al. (2021), Maguiness and Frieden (2025) and Nunes et al. (2022).

2. Quantitative results by relevant clinical entities

2.1 Cervicofacial vascular anomalies

Infantile hemangioma

Recent evidence confirms that infantile hemangioma is the most common congenital (or early neonatal) dermatological manifestation in the cervicofacial region. Contemporary reviews indicate that between 55% and 65% of infantile hemangiomas are located in the head and neck, with a variable risk of functional compromise depending on the affected segment (Maguiness & Frieden, 2025; Krowchuk et al., 2022).

In particular, segmental hemangiomas located in the mandibular and anterior cervical region ("beard" distribution) show a clinically significant association with subglottic hemangiomas, described in recent series as one of the main causes of progressive stridor in infants (Orphanet, 2024; Springer, 2025).

Table 6: Cervicofacial Localization of Infantile Hemangioma and Associated ENT Risk

Location	Main ENT risk
Periorbital region	Visual compromise, nasal obstruction
Lips and oral cavity	Difficulty feeding
Mandibular region ("beard")	Risk of subglottic hemangioma
Side collar	Compression of cervical structures

Source: adapted from Krowchuk et al. (2022) and Maguiness and Frieden (2025).

Lymphatic malformations

Cervicofacial lymphatic malformations showed a high clinical relevance in the results analyzed. In the retrospective series by Yang et al. (2024), which included 94 pediatric patients with lymphatic malformations of the head and neck, it was evidenced that the locations with the greatest functional impact ENT were the tongue, the floor of the mouth, and the pharynx.

Table 7: Anatomical distribution of cervicofacial lymphatic malformations (Yang et al., 2024)

Location	n	Proportion
Head	60	0,64
Collar	41	0,44
Language	7	0,07
Pharynx	7	0,07

These locations were associated with symptoms such as dysphagia, dysphonia, and episodes of respiratory obstruction, reinforcing the need for early involvement of the ENT specialist in the management of these patients (Yang et al., 2024; Kaji et al., 2024). In terms of therapeutic response, 80.9% of patients had an excellent or good outcome after combined strategies (surgery, sclerotherapy, or pharmacological management), supporting the current multidisciplinary approach (Yang et al., 2024).

2.2 Cutaneous manifestations of gill anomalies

Abnormalities of the gill arches are one of the most common causes of congenital cervical masses. The results of recent studies indicate that the initial skin manifestation, such as pits or small lateral holes in the neck, is present from birth in a high percentage of cases (Chen et al., 2023; Yu et al., 2025).

In the series by Chen et al. (2023), which included 52 children with abnormalities of the second branchial arch, 67.3% had congenital skin fossite or early cervical drainage.

Table 8: Initial cutaneous manifestations in second-arch gill anomalies

Cutaneous manifestation	n	Proportion
Congenital skin fossite	**29**	**0,56**
Recurrent cervical drainage	**6**	**0,11**
Cervical mass with no visible opening	**17**	**0,33**

Source: Chen et al. (2023).

From the ENT perspective, these results show that neonatal skin inspection allows for early diagnosis, reducing the risk of recurrent infections and repeated surgeries, as indicated by recent otorhinolaryngological studies (Yu et al., 2025; Fanous et al., 2021).

Congenital cervicofacial nevi and ENT repercussions

Congenital melanocytic nevi and epidermal nevi located in the head and neck represented a less frequent but clinically relevant group. Recent reviews indicate that approximately 1% of newborns have some type of congenital melanocytic nevus, with the cervicofacial region being one of the locations with the greatest functional and aesthetic impact (Recalcati et al., 2024). Although most do not produce direct ENT symptoms, extensive or segmental nevi were associated in the recent literature with neurocutaneous syndromes and structural alterations that may affect hearing, phonation, or airway, warranting a complementary ENT evaluation in selected cases (Alikhan et al., 2022; Recalcati et al., 2024).

Congenital skin defects: aplasia cutis

Congenital cutis aplasia was reported as a rare entity, but with a high clinical impact when it extends to the cervicofacial region. Recent studies describe that, in the presence of profound defects, there is an increased risk of infectious and hemorrhagic complications, as well as association with craniofacial malformations (Frontiers in Pediatrics, 2023; UpToDate, 2025). From the ENT point of view, the results reviewed indicate that these patients require comprehensive evaluation when alterations of the upper airway or malformations of the facial mass coexist, reinforcing the importance of an interdisciplinary approach (Frontiers in Pediatrics, 2023).

Synthesis of diagnostic implications for otorhinolaryngological practice

The integration of the results allows the identification of clinical patterns useful for ENT practice, where the congenital skin lesion acts as an early marker of underlying pathology.

Table 9: Congenital dermatological manifestation and main diagnostic implication ENT

Skin lesion	Probable underlying pathology	ENT Priority
Segmental red vascular plaque	Infantile hemangioma	Airway Evaluation
Masa blanda cervicofacial	Lymphatic malformation	Respiratory risk and dysphagia
Lateral pit of the neck	Gill anomaly	Prevention of recurrent infection
Extensive congenital nevus	Neurocutaneous syndrome	Functional and Reconstructive Assessment
Deep skin defect	Aplasia cutis	Structural Assessment

Source: Authors' elaboration based on Fanous et al. (2021), Yang et al. (2024) and Recalcati et al. (2024).

Overall, the results confirm that the systematic evaluation of congenital cervicofacial dermatological manifestations in neonates constitutes a key diagnostic tool for modern otorhinolaryngological practice, allowing the early identification of potentially serious pathologies and the optimization of comprehensive clinical management.

CONCLUSION

Congenital dermatological manifestations of the cervicofacial region in neonates constitute a clinical element of high diagnostic value that transcends the exclusive scope of pediatric dermatology and is positioned as a fundamental tool for contemporary otorhinolaryngological practice. Recent scientific evidence confirms that a significant number of these skin lesions represent the superficial expression of deep structural, vascular or syndromic abnormalities, with potential repercussions on the upper airway, hearing, swallowing and phonation, critical functions in the neonatal period and early childhood (Fanous et al., 2021; Nunes et al., 2022; Maguiness & Frieden, 2025). First, the results analyzed reinforce the importance of a comprehensive and systematic clinical evaluation of the cervicofacial skin of the newborn as part of the initial otorhinolaryngological examination. Apparently innocuous lesions, such as a vascular plaque, a lateral cutaneous fossit of the neck or a soft swelling, can constitute early markers of subglottic hemangiomas, deep lymphatic malformations or gill abnormalities, respectively, entities that can evolve into respiratory obstruction, recurrent infections or severe functional alterations if they are not identified early (Krowchuk et al., 2022; Chen et al., 2023; Yang et al., 2024). In the case of cervicofacial vascular anomalies, the literature of the last five years highlights that the correct differentiation between vascular tumors and vascular malformations, according to the updated ISSVA classification, is decisive for prognosis and therapeutic management. For the specialist in otorhinolaryngology, this distinction makes it possible to anticipate the risk of airway compromise and guide the indication of endoscopic or advanced imaging studies, avoiding diagnostic delays with potentially serious consequences (ISSVA, 2025; Vikkula et al., 2025; Orphanet, 2024). Likewise, the conclusions derived from recent clinical series on lymphatic malformations of the head and neck show that, although most patients can benefit from multimodal therapeutic strategies with favorable response rates, the locations in the tongue, pharynx and deep cervical region continue to represent a diagnostic and therapeutic challenge for ENT practice, due to their direct impact on breathing and feeding (Yang et al., 2024; Kaji et al., 2024). In this sense, the early identification of associated skin signs acquires a fundamental preventive role. On the other hand, gill development abnormalities clearly demonstrate the relevance of neonatal dermatological examination in the cervical region. The high frequency of congenital skin pits or early drainage, described in recent studies, shows that the skin may be the first and sometimes the only indicator of the presence of deep fistulous tracts. Timely intervention by the otolaryngologist can significantly reduce the incidence of recurrent infections, extensive scarring, and repeated surgical procedures (Chen et al., 2023; Yu et al., 2025). In relation to congenital cervicofacial nevi and structural skin defects, such as congenital cutis aplasia, the conclusions of the recent literature underline that, although these entities are less frequent, their location in the head and neck requires careful ENT assessment, especially when they are associated with neurocutaneous syndromes, craniofacial alterations or profound defects. In these scenarios, the participation of the otolaryngologist is key to functional assessment, reconstructive planning, and coordination of a patient-centered interdisciplinary approach (Recalcati et al., 2024; Frontiers in Pediatrics, 2023). Finally, this paper concludes that the systematic incorporation of the analysis of congenital cervicofacial dermatological manifestations in neonatal otorhinolaryngological practice not only improves diagnostic accuracy, but also optimizes clinical decision-making and contributes to the reduction of morbidity associated with late diagnoses. Recent evidence supports the need to strengthen the training of ENT specialists in neonatal dermatological semiology and to promote multidisciplinary care models that integrate dermatology, radiology, pediatrics, and clinical genetics, with the aim of offering comprehensive, timely care based on the best available evidence (Fanous et al., 2021; Page et al., 2021; Maguiness & Frieden, 2025).

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