8 Epidemiology of Head and Neck Tumors

Jan Godzinski and Ines B. Brecht

Head and neck pathologies are frequent in childhood but rarely have malignant origin. Traumatic lesions, inflammatory enlargement of the lymph nodes, congenital malformations, cysts, hemangioma, lymphangioma, vascular malformations, and even infectious diseases may mimic malignant conditions. Though the incidence of head and neck cancer in pediatric patients is relatively low, recently, an increase in incidence of malignant head and neck cancer in pediatric patients was reported (Albright et al. 2002; Schwartz et al. 2015). The incidence rose from 1.1 per 100,000 in 1973–1975 to 1.6 in 2007–2009 (Schwartz et al. 2015). Twelve percent of all pediatric malignancies are located in the head and neck region (Albright et al. 2002). Lymphomas, rhabdomyosarcomas, and thyroid carcinomas are most often seen, followed by carcinomas of the salivary gland and nasopharyngeal carcinomas. However, the geographical region has an impact on the distribution of entities. For example, Burkitt lymphoma and nasopharyngeal carcinoma, which are associated with Epstein-Barr virus, are more often seen in Africa; on the other hand, Europe shows a predominance of lymphomas and sarcomas (Arboleda et al. 2020). In the subsequent chapters, the following unusual pediatric head and neck cancers are discussed: nasopharyngeal carcinoma, esthesioneuroblastoma, thyroid tumors, oral cancer, salivary gland cancer, and laryngeal carcinoma. Figure 8.1 shows the distribution of these rare head and neck tumors in children and adolescents.

J. Godzinski (✉)
Department of Pediatric Surgery, Marciniak Hospital, and Department of Paediatric Traumatology and Emergency Medicine, Medical University Wroclaw, Wroclaw, Poland

I. B. Brecht
Department of Pediatric Hematology/Oncology, University Children's Hospital Tuebingen, Tuebingen, Germany
e-mail: ines.brecht@med.uni-tuebingen.de

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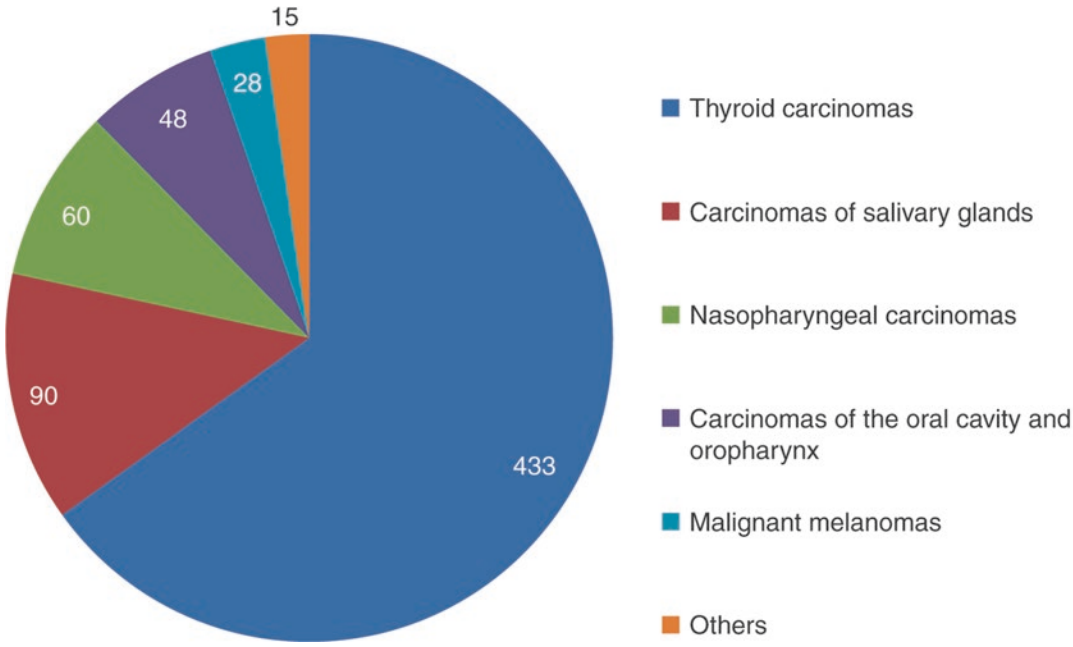

Fig. 8.1 Distribution of "other malignant epithelial neoplasms" of head and neck by ICD-3 code in children under the age of 15. Data from the US Surveillance and End Results Registry (SEER), 1973–2004

References

Albright JT, Topham AK, Reilly JS (2002) Pediatric head and neck malignancies: US incidence and trends over 2 decades. Arch Otolaryngol Head Neck Surg 128(6):655–659

Arboleda LPA, de Mendonça RMH, Lopez EEM, Araújo ALD, Palmier NR, de Pauli PM, Fonseca JM, Hoffmann IL, Cardinalli IA, Chaves ALF, Aranda S, Brandão TB, Lopes MA, Ribeiro ACP, Troconis CCM, Santos-Silva AR (2020) Global frequency and distribution of head and neck cancer in pediatrics, a systematic review. Crit Rev Oncol Hematol 148:102892

Schwartz I, Hughes C, Brigger MT (2015) Pediatric head and neck malignancies: incidence and trends, 1973-2010. Otolaryngol Head Neck Surg 152(6):1127–1132