Skin cancer development in a birthmark

Alexandra C. Finstad BSc, Mark G. Kirchhof MD PhD

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A 57-year-old man presented with concerns about a new growth on his scalp. He was born with a birthmark on his scalp that had become bumpy over time, but over the previous year he had noticed the development of a new nodule. He had no personal or family history of skin cancer nor any history of severe sunburns or tanning bed use. He reported no regular use of medications and had no history of medical problems. Physical examination showed a pink and grey nodule within a verrucous plaque (Figure 1). Biopsy was performed and showed a pigmented basal cell carcinoma within a nevus sebaceus.

Nevus sebaceus is a cutaneous hamartoma that occurs in less than 1% of the population, most often on the face and scalp.¹⁻³ It classically presents as a waxy, skin-colored to yellow-orange alopecic plaque. These lesions proportionally enlarge with age and undergo proliferative changes at puberty, commonly transforming into a verrucous or cerebriform plaque (see Appendix 1, available at www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.190492/-/DC1, for normal nevus sebaceus images).² Although it usually presents at birth, nevus sebaceus may not be identified until later in life.

Secondary neoplasms develop within nevus sebaceus in about 15%–21.4% of cases.^{1,2} These secondary neoplasms are benign in about 13.6%–18.9% of cases and include trichoblastomas, syringocystadenomas papillifera, trichilemmomas, sebaceomas, and apocrine or eccrine adenomas.^{1,2} Malignant transformation is uncommon, occurring in 0.8%–2.5% of secondary neoplasms.^{1,2} Basal cell carcinoma is the most commonly associated malignant disorder, with others being squamous cell carcinoma and sebaceous carcinoma.^{1,2}

Management of nevus sebaceus should be decided on a case-by-case basis. As malignant transformation is rare, especially in children, observation should be the standard of care until adolescence.¹⁻³ In adolescence, the need for prophylactic excision should be evaluated for preventive and cosmetic reasons.¹⁻³ Ultimately, the timing and need for excision should be decided on by the physician, patient and family.³

References

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Figure 1: A pink and grey shiny nodule within a verrucous plaque on the scalp of a 57-year-old man. Histopathological examination identified a pigmented basal cell carcinoma within a nevus sebaceus.

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Affiliations: Faculty of Medicine (Finstad) and Division of Dermatology (Kirchhof), Department of Medicine, University of Ottawa; Ottawa Hospital (Kirchhof), Ottawa, Ont.

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Correspondence to: Mark Kirchhof, mkirchho@uottawa.ca

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