

## Brooke-Spiegler Syndrome: Age-Related Progression in a Family Group

Andrea Michelerio<sup>1,2</sup>, Eloisa Arbustini<sup>3</sup>, Camilla Vassallo<sup>2</sup>

1 Department of Clinical-Surgical, Diagnostic and Pediatric Science, University of Pavia, Pavia, Italy

2 Dermatology Clinic, Fondazione IRCCS Policlinico San Matteo, Pavia, Italy

3 Centre for Inherited Diseases, Fondazione IRCCS Policlinico San Matteo, Pavia, Italy

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**Corresponding Author:** Andrea Michelerio, M.D., Department of Clinical-Surgical, Diagnostic and Pediatric Sciences, University of Pavia, and Dermatology Clinic, Fondazione IRCCS Policlinico San Matteo, Pavia, Italy. E-mail: [andrea.michelerio01@universitadipavia.it](mailto:andrea.michelerio01@universitadipavia.it)

### Case Presentation

A 56-year-old woman complained about numerous skin-colored papules localized on the face, mostly on the periorbital area, the nasolabial folds and the forehead (Figure 1, A and B). The first lesions had appeared during early adulthood and had slowly grown in number and size during the following years. Some had been removed and the histopathological examinations had revealed trichoepitheliomas, cylindromas and an eccrine spiradenomas.

The 81-year-old mother of the proband presented numerous nontender, skin-colored nodules and papules, varying in size, especially on her forehead, nasolabial folds, preauricular and occipital areas (Figure 1, C and D). The 24-years-old daughter of the proband presented few barely detectable papules on the nasolabial folds (Figure 1, E and F). A heterozygous pathogenetic variant (c.2552dup p.His851Glnfs\*39) in exon 19 of the CYLD

gene was found in the three women, confirming the diagnosis of Brooke-Spiegler syndrome (BSS).

### Teaching Point

BSS is a rare autosomal dominant inherited syndrome due to germline mutations in the cylindromatosis (CYLD) gene, a tumor suppressor gene located on chromosome 16q12–q13. The disease is characterized by multiple adnexal cutaneous neoplasms such as cylindromas, trichoepitheliomas, and spiradenomas [1,2]. These appear as multiple papules or nodules on the head and neck but can also arise on the trunk, genitals and armpits. The neoplasms typically develop at puberty and progressively accumulate through adulthood [1]. They are usually benign but may undergo malignant transformation in about 5%–10% of the patients [1]. Rarely salivary gland tumors can be found [1]. The treatment is limited to repeated surgical excisions.



**Figure 1.** Brooke-Spiegler syndrome. (A,B) The 56-year-old proband with multiple confluent skin-colored papules located on the face, especially in the periorbital area, in the nasolabial folds and forehead. (C,D) The 81-year-old mother of the proband with multiple discrete and confluent skin-colored papules and nodules. (E,F) The 24-year-old daughter of the proband, few barely detectable papules on the nasolabial folds (arrow).

## References

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