

The Spitz Lesions: An Evolutionary Road of Melanocytic Lesions

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The Spitz lesions are rare and challenging Melanocytic lesions that are primarily recognized during childhood. These lesions include the conventional Spitz nevus, atypical Spitz tumor and Spitzoid Melanoma. Clinically, Spitz lesions can be anywhere from pink or flesh-colored, to brown, to a black lesion that may grow and ulcerate. In addition, these lesions may affect any site, however, they predominantly present at the face or the head and neck region of a child or a young individual. Histologically, Spitz nevus is recognized as a proliferation of predominantly uniform Melanocytes in a raining-down pattern. Atypia, as well as mitoses, are not uncommon. Atypical Spitz tumor is characterized by melanocytic proliferation with significant Atypia, increased mitoses, and loss of the raining-down pattern with an extension to the subcutaneous adipose tissue resembling Spitzoid Melanoma. The latter is predominantly a dermal-based lesion with striking atypia, frequent dermal mitoses, and subcutaneous tissue invasion with significant tumor-infiltrating lymphocytes. The Spitz lesions may overlap clinically and histologically which make the lesion problematic to diagnose. In Spitz nevi and tumors, molecular studies with CGH and FISH revealed an increased chromosome 11p copy number and RAS mutation, respectively, whereas the mutation in Spitzoid Melanoma is BRAF with no increase in 11p copies. Treatment includes clinical follow-up of Spitz nevus while a complete excision with negative margins is recommended in atypical Spitz tumor and indicated in Spitzoid Melanoma.

In summary, the Spitz lesions are best described as a continuum of an evolving melanocytic lesions with significant clinical and histological overlap. Immunohistochemical staining with melanocytic markers have a limited use in these lesions. In problematic cases, molecular studies are used routinely for accurate diagnosis and proper treatment.

Biography:

Haider A. Mejbil is a chief resident in Pathology at ETSU with a background experience in diagnosis as well as translational research in Skin Pathology. Following graduation from medical school, Dr. Mejbil had a formal research training in skin cancer biology under the tutelage of Dr. Thuy L. Phung.

Dr. Mejbil developed his experience in Dermatopathology from Dr. Thuy L. Phung and enhanced his skills under the mentorship of Dr. Bruce R. Smoller.

Dr. Mejbil and Dr. Smoller are awarded from The American Society of Dermatopathology for their current investigative research study of the Adnexal Skin Neoplasms.

Dr. Mejbil recent publication includes co-authoring chapters in Phung, Wright, Pourciau, and Smoller "Pediatric Dermatopathology" textbook, and his research interest includes Primary Cutaneous Lymphoma, Pathology of the Skin Appendages, Childhood Melanoma and Pediatric Dermatopathology.