

## boards fodder

### Paisley tie differential diagnoses

By Sujitha Yadlapati, MD, and Thomas Davis, MD, FAAD



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Diagnosis	Histopathologic features	Clinical features and associations	Histology image
Desmoplastic trichoepithelioma	<ul style="list-style-type: none"> <li>• Central dell</li> <li>• Tadpole-shaped cords and strands</li> <li>• <b>Pink collagenous stroma</b></li> <li>• Respects the dermal subcutaneous junction; often has a horizontal growth pattern.</li> <li>• <b>Horn cysts</b> with calcification common</li> <li>• <b>Clefts between collagen fibers within stroma versus epithelium and stroma as seen in morpheaform BCC</b></li> </ul>	<ul style="list-style-type: none"> <li>• Also known as a sclerosing epithelial hamartoma, sometimes associated with a melanocytic nevus</li> <li>• Solitary, firm, flesh-colored papule with central dell. The classic presentation is on the cheek of a young woman.</li> </ul>	
Microcystic adnexal carcinoma (MAC)	<ul style="list-style-type: none"> <li>• <b>Deeply infiltrative tumor</b></li> <li>• Bland basaloid strands in the dermis</li> <li>• <b>Bi lineage differentiation</b> (horn cysts – follicular differentiation; tadpole ducts – sweat duct differentiation)</li> <li>• Frequently exhibits <b>perineural invasion</b></li> <li>• <b>Lymphoid aggregates</b></li> </ul>	<ul style="list-style-type: none"> <li>• Indurated plaque on the upper lip, cheek, or chin</li> <li>• More common in middle-aged and older adults</li> <li>• High recurrence rate</li> </ul>	
Morpheaform Basal cell carcinoma	<ul style="list-style-type: none"> <li>• <b>Thin cords of basaloid cells</b> invading the dermis</li> <li>• <b>Sclerotic stroma</b></li> <li>• Clefting between epithelium and stroma (if present)</li> <li>• <b>Mitoses and apoptotic cells often present</b></li> <li>• May demonstrate perineural invasion</li> </ul>	<ul style="list-style-type: none"> <li>• Indurated firm plaque resembling a scar in an older individual.</li> </ul>	
Syringoma	<ul style="list-style-type: none"> <li>• Islands or clusters of tadpole-shaped sweat ducts in dense sclerotic background stroma.</li> <li>• <b>Lacks follicular differentiation</b></li> </ul>	<ul style="list-style-type: none"> <li>• Cheek, under the eyes in young women</li> <li>• Clear cell variant can be noted in diabetes</li> <li>• Common in Asian women, and children with Down syndrome</li> <li>• Eruptive syringomas can be noted on the chest, back, or penis.</li> </ul>	

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### Characteristics of Paisley tie pattern tumors

Characteristic	MAC	Desmoplastic trichoepithelioma	Syringoma	Morpheaform BCC
Paisley tie pattern	Yes, throughout the tumor	Yes	Yes	Sometimes superficially
Stroma	Red, sclerotic	Red, sclerotic	Red, sclerotic	Red, sclerotic; may have mucin
Horn cysts	Common	Common	Occasional (lacks follicular differentiation)	Occasional
Calcification	Rare	Common	Rare	Rare
Deeply invasive	Yes (a hallmark of MAC)	No	No	Can be
Perineural invasion	Yes	No	No	Yes
Central dell	No	Yes	No	No
Clinical presentation	Firm plaque on the upper lip, medial cheek, or chin	Firm papule on the cheek of a young female	Small papules on lower lids, common with Down syndrome, and in Asian females	Indurated scar-like plaque in an older individual

#### References:

1. Elston, D. "Sweat gland neoplasms." *Dermatopathology*, by Dirk M. Elston et al., 3rd ed., Elsevier, 2019, pp. 88-9.
2. Elston, D. "Pilar and sebaceous neoplasms." *Dermatopathology*, by Dirk M. Elston et al., 3rd ed., Elsevier, 2019, pp. 72.
3. Rapini, R. "Sweat Gland neoplasms." *Practical Dermatopathology*, by Ronald P. Rapini, 3rd ed., Elsevier Health Sciences, 2012, pp. 286-8.