## Answer to Dermacase *continued from* **page 767**

### 3. Accessory tragus

Accessory tragi are relatively common congenital abnormalities, with an incidence of between 1 and 10 per 1000 live births.[1-3] They are also correctly referred to as *heterotrophic tragi* or *supernumerary tragi*.[4] They are often inaccurately labeled as *preauricular skin tags, accessory auricle, polyotia, rudimentary ear,* or *supernumerary pinna*.[4] Clinically, they are noted on physical examination at birth or by parents in the newborn period. Accessory tragi typically present as pedunculated or sessile, skin-coloured papules located in the preauricular region. They are most often unilateral and solitary, but can be multiple or bilateral.[5,6] Owing to their embryologic origin, they might also present anywhere along an imaginary line drawn from the tragus to the angle of the mouth.[7,8] On palpation they might feel soft or firm depending upon the degree of underlying cartilaginous structure.[8] Histologic examination commonly reveals a prominent connective tissue framework, subcutaneous fat, and numerous tiny mature hair follicles, with or without the presence of a cartilaginous component.[9,10]

While their cause is unclear, the pathophysiologic basis of the accessory tragi relates directly to the embryologic development of the external ear. The tragus derives from the first branchial arch, while the remaining components of the external ear all derive from the second branchial arch.[8,11] The first branchial arch also gives rise to the mandible and maxilla, explaining why accessory tragi have also been reported along the jaw line.

### Differential diagnosis

Diagnosis is clinical, based on the appearance and characteristics outlined above. The cardinal features of accessory tragi are their anatomic location and presence at birth. Histologic evaluation can help confirm the clinical diagnosis.[4,9] They differ from auricular fistulas, which might also be present at birth, in that the latter are typically depressions or pits located about the helix.[8] While sometimes congenital, branchial cysts characteristically appear on the upper lateral aspect of the neck (owing to their second-branchial-arch origin) and often slowly enlarge and contain a clear-to-mucinous fluid with granular cellular debris when excised.[12] Epidermoid cysts might look similar, in that they are often well-circumscribed, dome-shaped, skin-coloured, mobile, firm nodules commonly found on the face and neck of children. They are not typically congenital, rather resulting from occlusion of pilosebaceous follicles, and they can periodically become inflamed or infected. Excision often results in expression of a keratinized material of cheesy consistency.[5] True preauricular skin tags are not present at birth and never contain cartilage.

While usually found in isolation, accessory tragi have been associated with a number of genetic syndromes and other abnormalities. Among these, accessory tragi are a constant finding in patients with the autosomal recessive condition, oculoauriculovertebral dysplasia (Goldenhar syndrome).[13] In a small percentage of patients, accessory tragi have also been associated with hearing impairment[14] and renal abnormalities such as hydronephrosis and horseshoe kidney.[1,2] Among the former, routine neonatal hearing tests are effective in screening for deficits.[14] For the latter, controversy exists as to whether routine renal ultrasonography is warranted in infants with isolated accessory tragi.[1,2] However, in the absence of other abnormalities or symptoms, investigation appears unwarranted.

### Treatment

Accessory tragi are most often clinically insignificant and thus, in the absence of other signs or symptoms, reassurance is the only treatment required. Treatment might be sought if there is localized irritation or if the lesion is cosmetically unacceptable. In such cases, surgical excision by a plastic surgeon is warranted, as care must be taken to remove any and all underlying cartilage, which can extend deep into the subcutaneous layer.[7,8] It is generally advisable for this to be completed before the child begins school. Shave excision or incomplete surgical excision can leave an exposed cartilaginous fragment, resulting in slow healing or chondrodermatitis.[15] If excised appropriately, healing is usually complete and uncomplicated.

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**Competing interests**
None declared

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