

## The so-called “combined epithelial odontogenic tumor”: A specific entity or not?

Adenomatoid odontogenic tumor (AOT) is believed to be a true benign, nonaggressive, noninvasive neoplasm, but few also categorize it as a developmental hamartomatous odontogenic growth.<sup>[1]</sup> Almost all variants of AOT show identical histology, where tumor may be partly cystic or solid, odontogenic epithelium with various patterns and varying degrees of inductive change in the connective tissue.

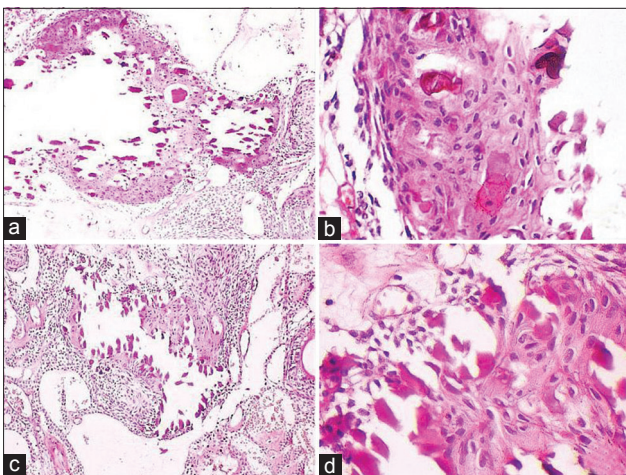
Damm *et al.* (1983) first described the presence of “CEOT-like areas” within two cases of AOT, and named these as “combined epithelial odontogenic tumor.”<sup>[2]</sup> The presence of “combined epithelial odontogenic tumor (CEOT)-like cells” in AOT has led some authors to consider these areas as true foci of CEOT.<sup>[3]</sup> Spindle-shaped cells in AOT are morphologically and histochemically similar to stratum intermedium cells of the enamel organ, and according to some authors, it is also the origin of CEOT cells. This could explain the coexistence of these two embryologically related cells, which was also supported by Montes Ledesma *et al.*<sup>[3]</sup> and Mosqueda-Taylor *et al.*<sup>[4]</sup>

To the best of our knowledge, there are no reported cases in English literature where CEOT predominates over AOT. We suggest that CEOT-like areas in AOT are the normal constituent of AOT and are specific to those areas where inductive changes are taking place. These are “CEOT-like areas” and not true CEOT as it does not show predominance over AOT and also lacks typical pleomorphism seen in CEOT.

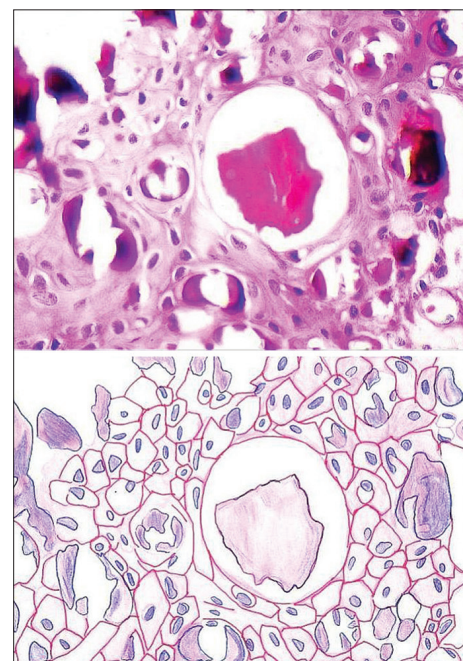
A low-power view shows “CEOT-like areas” surrounded by cuboidal, columnar and spindle cells arranged in sheets, ductal and lace-like pattern with variable amount of calcification [Figure 1a and c]. A high-power view shows polyhedral cells with eosinophilic cytoplasm of squamous appearance with well-defined cell borders, few areas showing intercellular bridges and intracytoplasmic homogeneous substance which are more prominent in CEOT-like areas [Figure 1b and d]. Handmade illustration of “CEOT-like area” is shown in Figure 2.

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Nil.



**Figure 1:** (a and c) Combined epithelial odontogenic tumor-like areas surrounded by cuboidal, columnar and spindle cells arranged in sheets, ductal and lace-like pattern with variable amount of mineralization (H & E stain, ×100). (b and d) Foci of combined epithelial odontogenic tumor-like cells; polyhedral cells with eosinophilic cytoplasm with well-defined cell borders, few areas showing intercellular bridges and intracytoplasmic homogeneous substance (H & E stain, ×400)



**Figure 2:** A hand-drawn illustration (H & E stain, ×400)

## Conflicts of interest

There are no conflicts of interest.

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