

# Histological differentiation between glandular odontogenic cyst and dentigerous cyst exhibiting mucous metaplasia

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**Introduction:** Microscopic features of GOC have been described in detail in literature, sometimes diagnostic confusion arises due to overlap of its histomorphological characteristics with other odontogenic cysts. Most common GOC mimics include dentigerous cyst with mucous metaplasia (DCM), botryoid odontogenic cysts, radicular cysts and surgical ciliated cysts. This study aims to evaluate clinical, radiographic, and histological disparity between glandular odontogenic cyst and dentigerous cyst with mucous metaplasia.

**Methods:** 15 cases of glandular odontogenic cyst (GOC) and 11 cases of dentigerous cyst with mucous metaplasia (DCM) from pathology records were reviewed considering clinical and histopathological data. Statistical analysis was applied on microscopic parameters to evaluate if any feature was helpful in differentiating them.

**Results:** GOC had male predilection while no such association was evident in DCM. The mean age was 47.7 years and 41.5 years for GOC and DCM respectively. Posterior mandible was the commonly affected site for GOC, but DCM was almost equally distributed between mandible and maxilla. The presence of intraepithelial microcyst, apocrine snouting and papillary projections appeared to be most helpful in distinguishing GOC from DCM ( $p=0.001$ ). Our study found that the presence of eight or more parameters were highly predictive of GOC whereas five or fewer parameters were more predictive of DCM.

**Conclusion:** Even though GOC is aggressive with a high recurrence rate, the expected morbidity in cases of DCM is higher due to transformation into ameloblastoma or mucoepidermoid carcinoma. Hence careful evaluation of microscopic parameters along with clinical history and radiology can help in differentiating these two pathologies.