عنوان فارسی مقاله:
کارسینوم تیمیک در ضمن تشکیل غضروف در سگ

عنوان انگلیسی مقاله:
Thymic Carcinoma with Cartilage Formation in a Dog
The thymus develops from the third and fourth pharyngeal pouches during embryogenesis (Suster and Rosai, 2007). The endodermal lining and the mesenchyme (derived from the neural crest) of the pharyngeal pouches give rise to the epithelial cells and supporting stroma of the thymus, respectively. At the same time, the cartilage tissue of the head and neck (i.e., hyoid cartilage) is produced from the pharyngeal pouch mesenchyme (Ruhin et al., 2003; Crump et al., 2004). Canine oral melanomas occasionally exhibit osteoarticular differentiation, which is considered to be a trait of neural crest-derived melanocytes (S’ánchez et al., 2007). In the present case, the cartilage component was either produced by the neoplastic cells from the surrounding mesenchyme or arose via neoplastic cell differentiation. The structural continuity of the epithelial and cartilage components, as well as the detection of pan-CK, CK19 and BMP6 expression in the chondroid cells, indicates that the cartilage tissue developed directly from the neoplastic thymic epithelial cells (Figs. 2 and 3). Also, the results of the immunohistochemical examination indicated that the tumour originated from the subcapsular CK19- and BMP6-positive thymic epithelial cells.