*Oral Presentation*

# The accuracy of MUC5AC, CEA and vimentin expressions in the differentiation of endocervical and endometrial adenocarcinoma

**Siwaporn Kanwaseth, Kanita Kayasut**

*Department of Pathology, Faculty of Medicine, Prince of Songkla University, Songkla, Thailand*

**Introduction:** Endocervical adenocarcinoma (ECA) and endometrial adenocarcinoma (EMA) have differences in etiologies, behavior and treatments. It needs to preoperative distinguish between these two tumors because of the overlapping morphological features.

**Objective:** The aims of this study were to use immunohistochemical staining, including MUC5AC, CEA and vimentin (Vi) for comparing the profile of primary EAC and EMA and to assess the diagnostic value of these markers for distinguishing between these two entities.

**Materials and methods:** Sixty six cases of ECA and EMA were evaluated by immunohistochemistry using antibodies against MUC5AC, CEA and Vi. All cases were confirmed the origin by pathological examination of the hysterectomy specimen.

**Results:** Most of ECA (92%) was MUC5AC positive diffusely whereas only focally positive in EMA (34%) were found. CEA positivity was more common in 95% of ECA than in 67% of EMA, while Vi was diffusely positive in 92% of ECA but only in 5% of ECA. The differences of MUC5AC, CEA and Vi expressions in ECA relative to EMA were statistically significant ($p < 0.001$). The positivity for MUC5AC, CEA and the negativity for Vi had 92%, 95% and 95% sensitivity and 65%, 33% and 92% specificity for differentiating ECA from EMA, respectively. Combination of two markers, MUC5AC+/Vi- and CEA+/Vi- had 91% and 92% sensitivity and 100% and 95% specificity. The sensitivity and specificity of MUC5AC+/CEA+/Vi- were 89% and 100%, respectively.

**Conclusion:** The results indicate that ECA and EMA exhibit distinct MUC5AC, CEA and Vi expression. The immunoprofile of MUC5AC+/Vi- is the most specific for ECA. MUC5AC and Vi are recommended for distinguishing ECA and EMA.

**Keywords:** MUC5AC, CEA, Vimentin, endocervical adenocarcinoma, endometrial adenocarcinoma, immunohistochemistry