Objective: Adrenocortical carcinoma (ACC) is an aggressive tumor that accounts for 0.02% of all reported cancers. ACC commonly arises in a sporadic manner, but may also manifest as part of a familial syndrome. Regardless of the setting, ACC rarely arises concurrent with other malignant tumors.

Methods: In this report we describe a 32-year-old woman who on work-up for abnormal vaginal bleeding was diagnosed with synchronous uterine adenocarcinoma, ovarian adenocarcinoma and ACC. We also provide a literature review of the past 20 years to identify other patients with ACC and synchronous malignant tumors, and those with familial syndromes associated with an increased risk of developing ACC.

Results and Conclusions: To our knowledge this is the first report of a patient with synchronous malignant tumors of the uterus, ovary and adrenal gland. Review of the literature revealed only 5 other cases in which a patient had concurrent ACC and malignant tumors in other organs.

Key Word:
Adrenocortical carcinoma, Ovarian cancer, Uterine cancer, Synchronous malignancies, and Hereditary syndrome