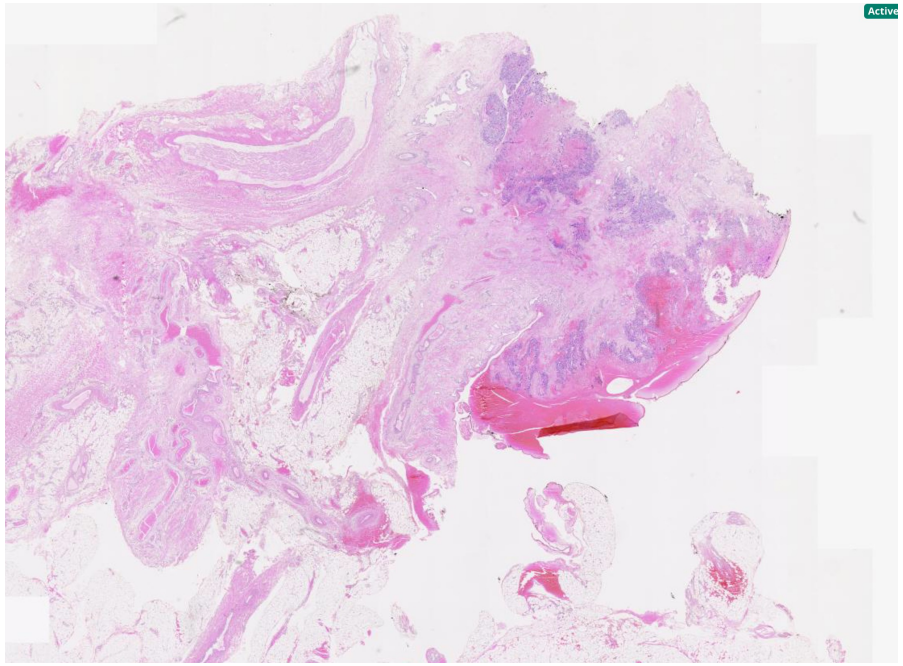
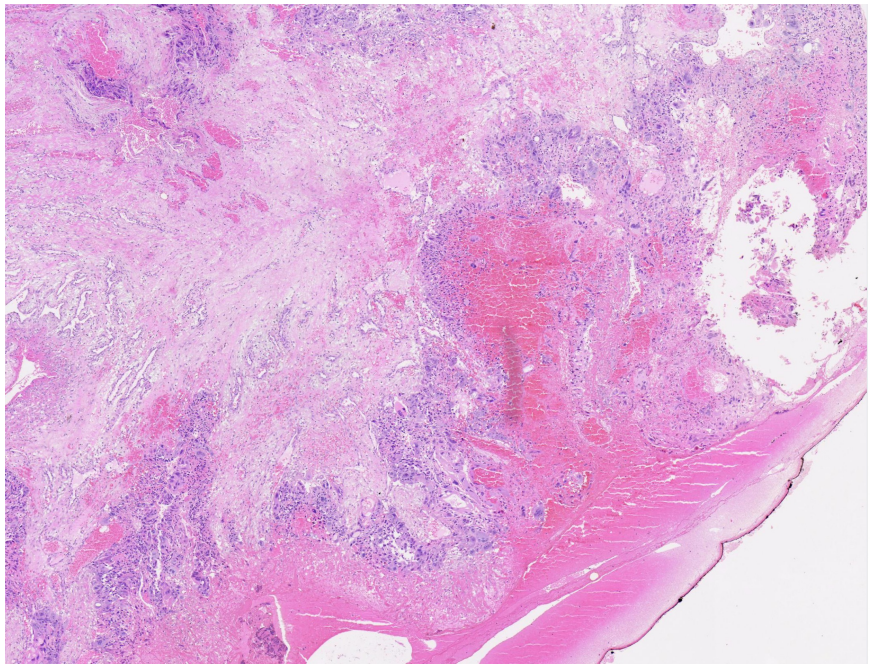
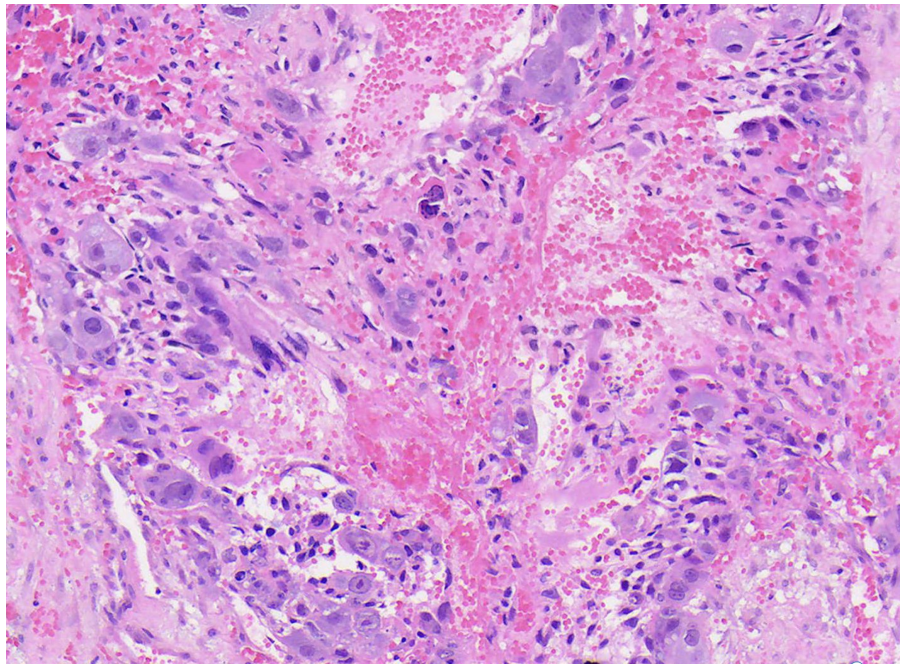
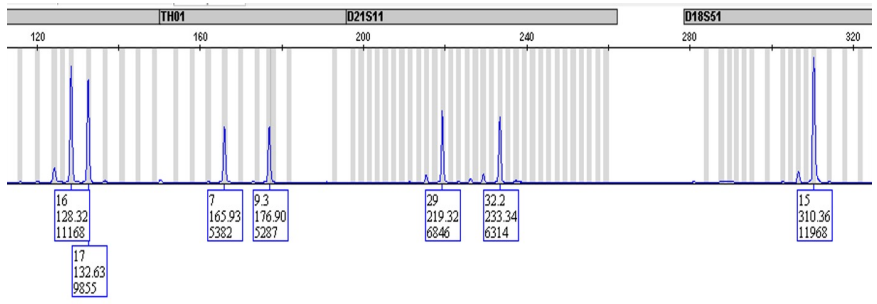
Where Knowledge is Created and Shared
Yale Pathology

38-year-old woman presenting with a left adnexal mass lesion and elevated serum hCG underwent hysterectomy and bilateral salpingo-oophorectomy. A 6.3 cm hemorrhagic mass centered at the left broad ligament with extension to adjacent myometrium and left ovarian hilum. The patient had a history of uterine curettage of complete hydatidiform mole (unclear the time internal).

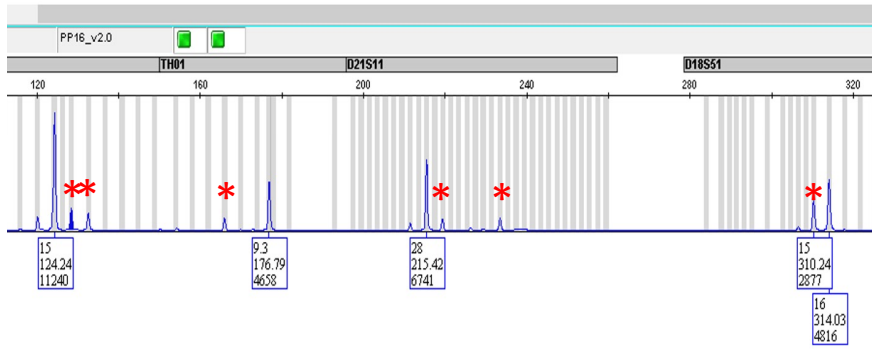








Normal Tissue

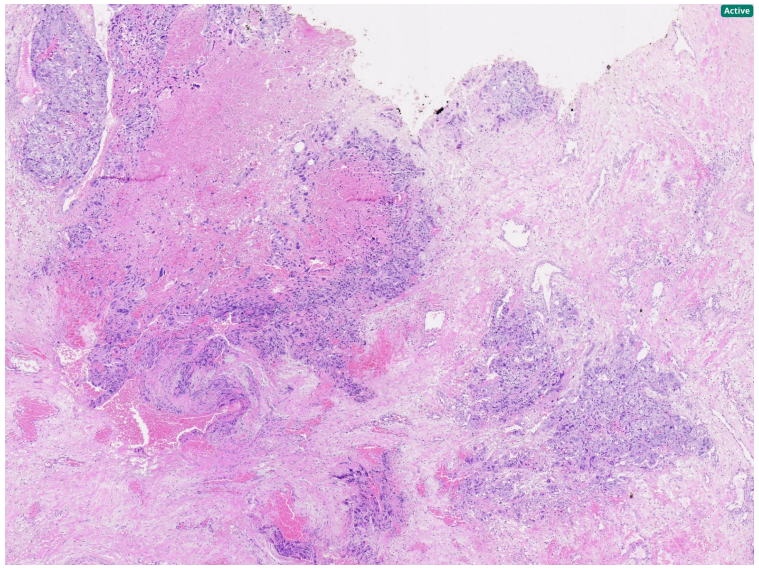


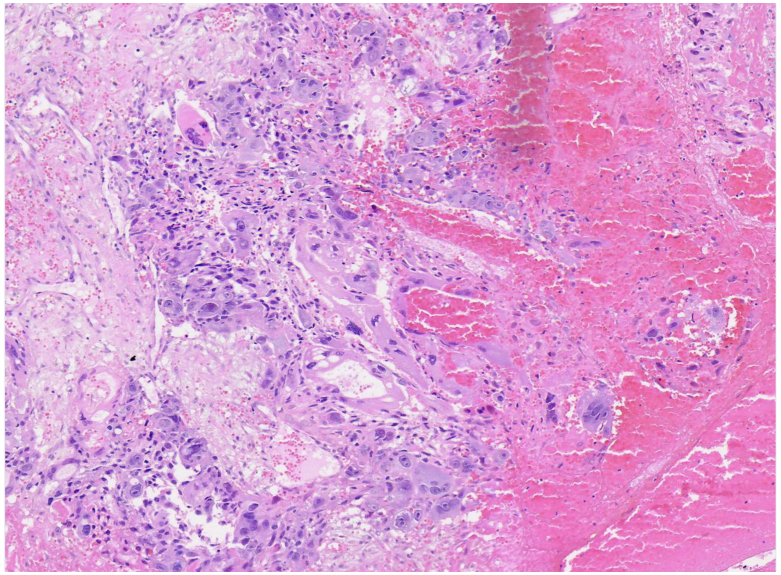
Tumor

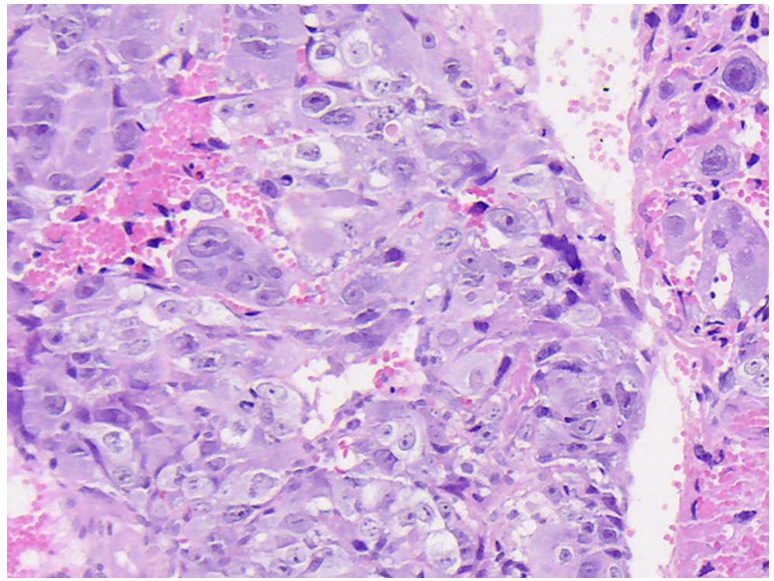
* Contaminating peaks/PCR products from normal tissue

Differential diagnoses

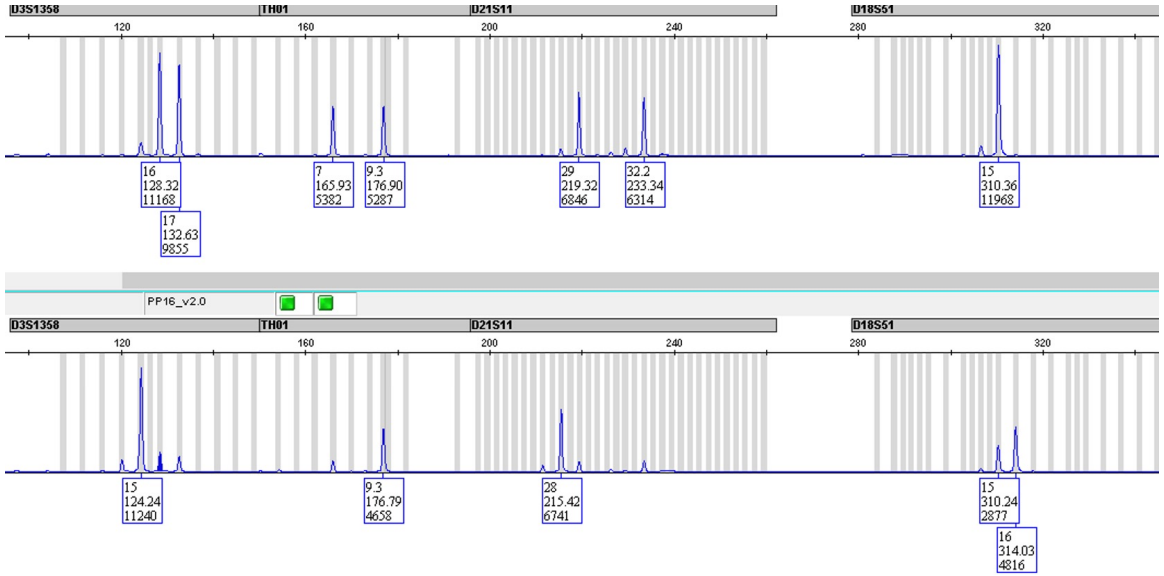
A. Choriocarcinoma of germ cell origin
B. Choriocarcinoma of somatic cell origin
C. Gestational choriocarcinoma
D. Peritoneal high-grade Mullerian carcinoma

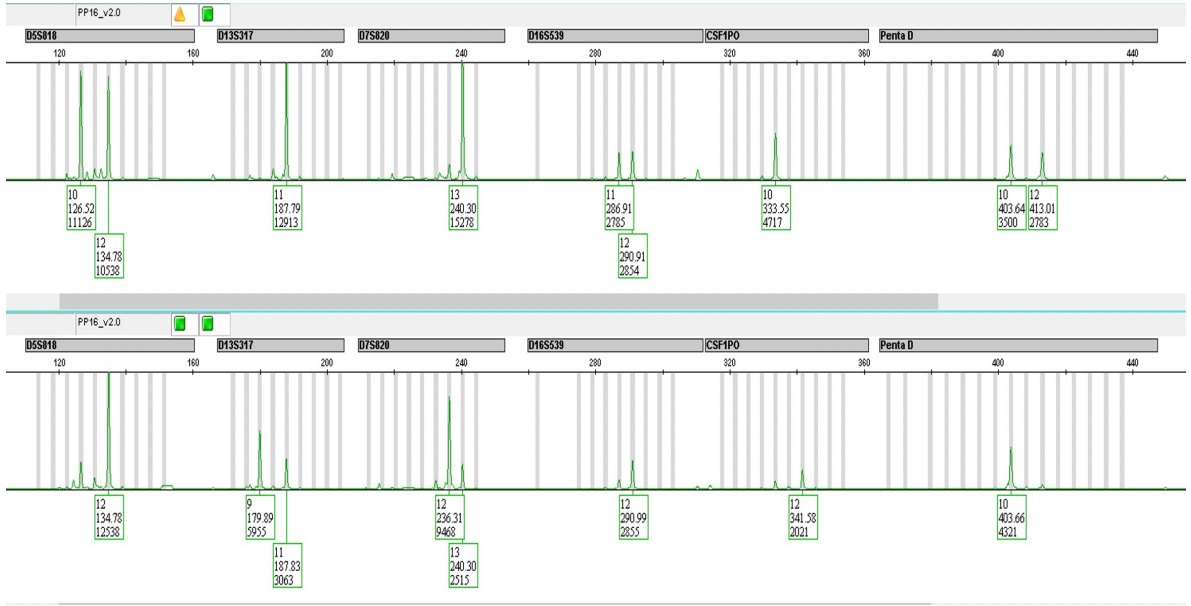


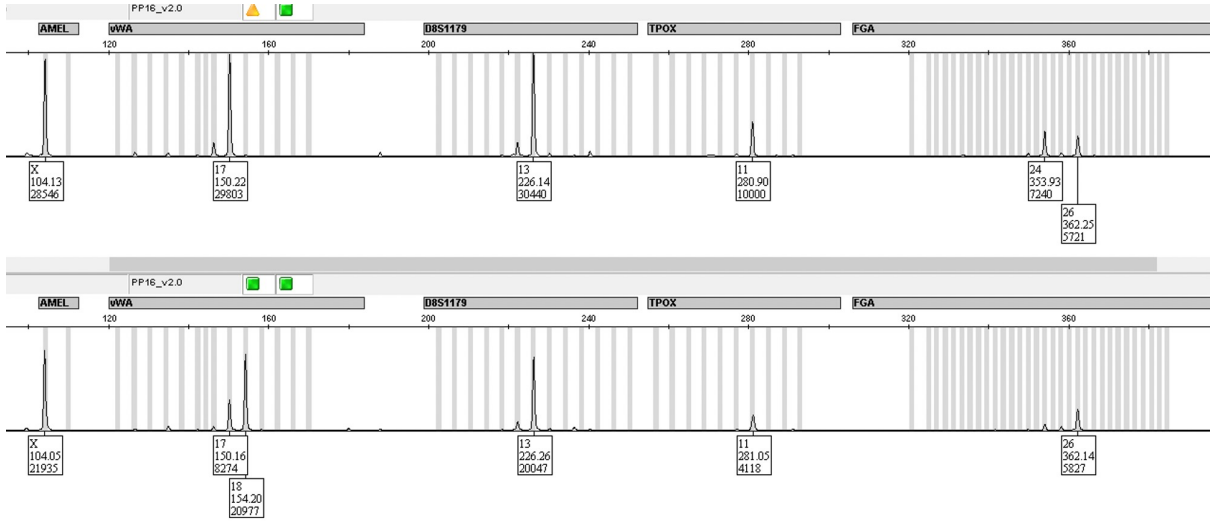




Additional Histological Images







Full STR genotyping panel

Final Diagnosis: Metastatic gestational choriocarcinoma arising from a monospermic/homozygous complete mole

Discussion

Diagnostic distinction based on histogenesis of an extrauterine choriocarcinoma - gestational, germ cell, versus somatic - is of paramount importance due to their marked differences in prognosis and patient treatment options. While clinical presentation, history, and certain clinicopathological parameters may be sufficient for diagnosis, presentation of choriocarcinoma at an extrauterine site in a young woman poses a unique diagnostic challenge. High index of suspicion is crucial and differential diagnosis of choriocarcinoma of various cell origins must be considered. STR genotyping is a powerful tool for separating a primary ovarian germ cell choriocarcinoma or a somatic carcinoma with trophoblastic differentiation from a gestational choriocarcinoma.