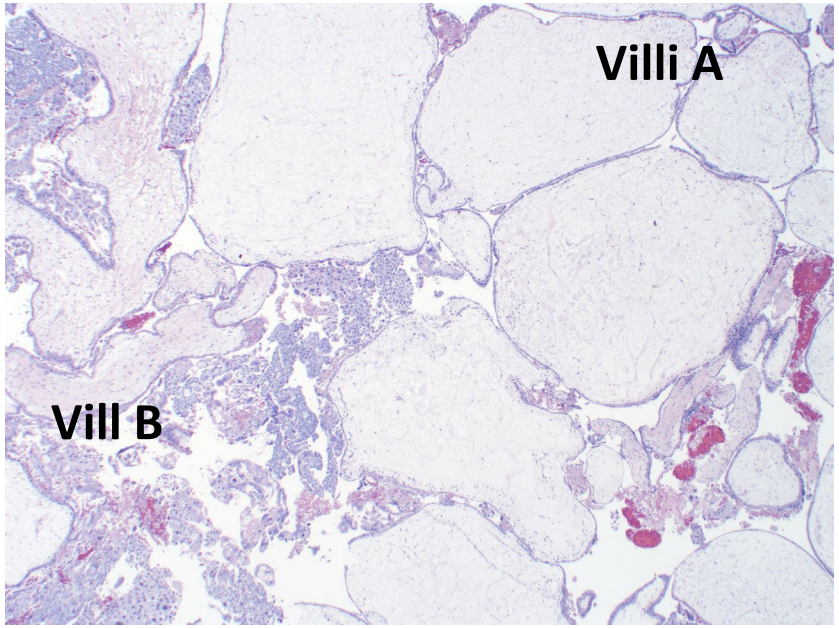
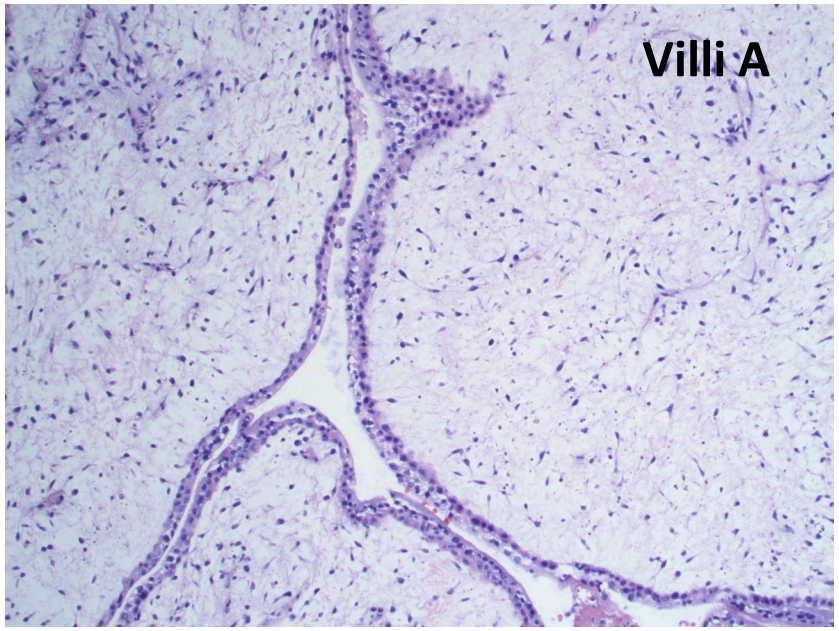
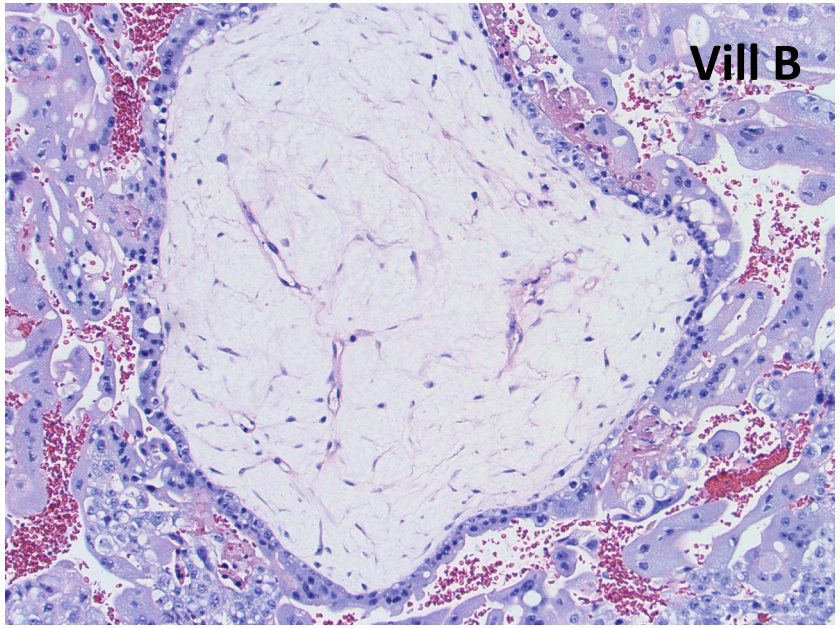
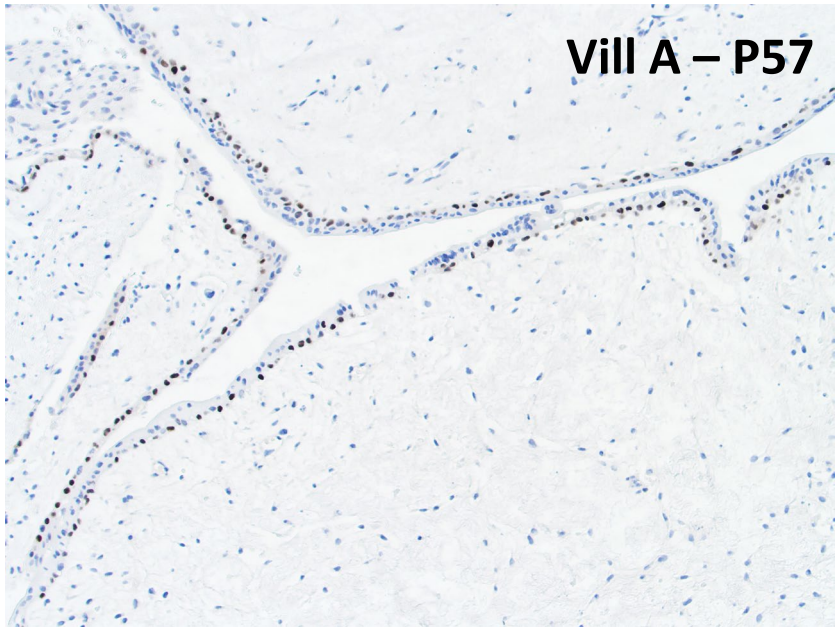
Where Knowledge is Created and Shared
Yale Pathology

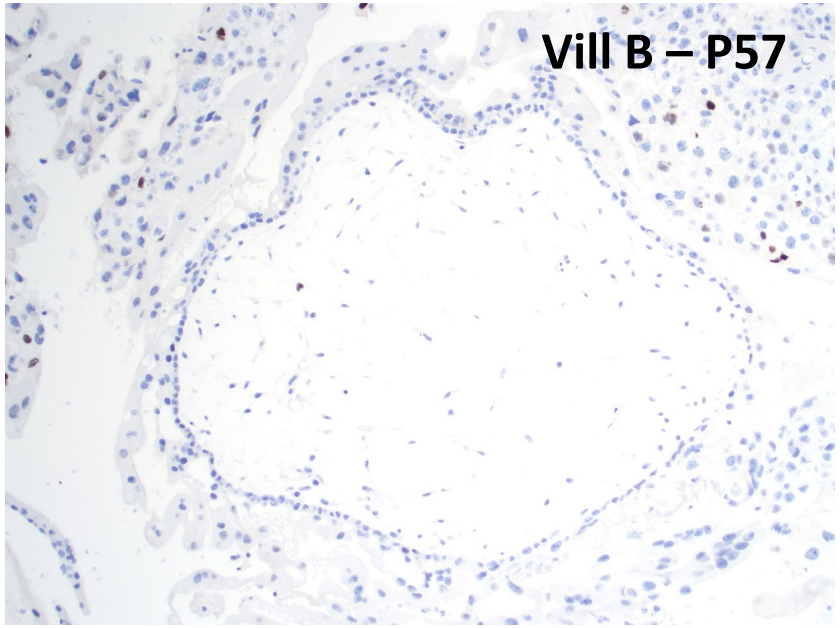
Missed abortion in a patient in her 30s





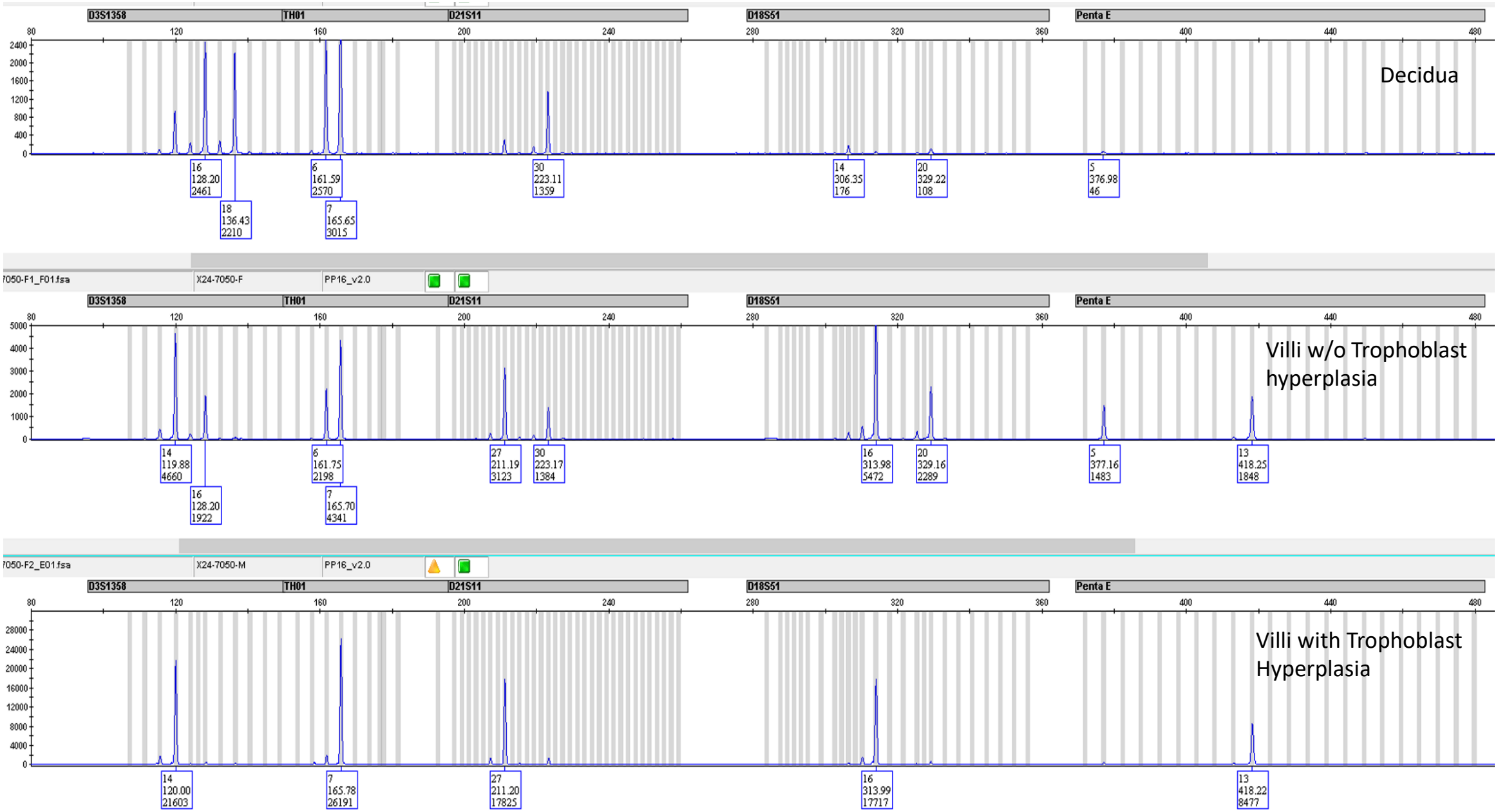






Villi A: without trophoblastic hyperplasia

Villi B: with trophoblastic hyperplasia

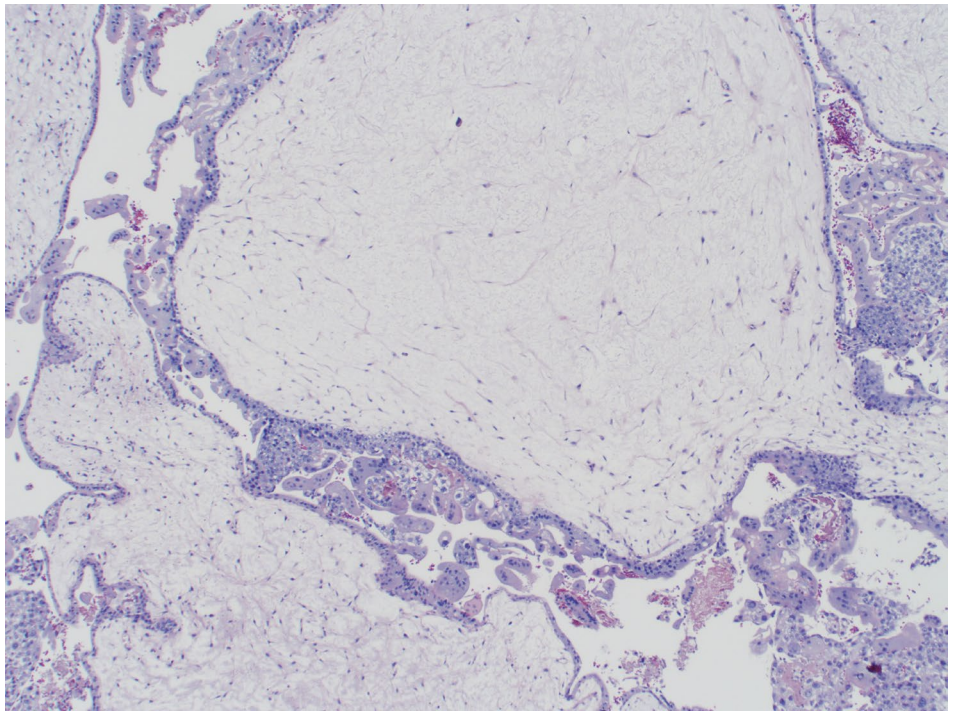


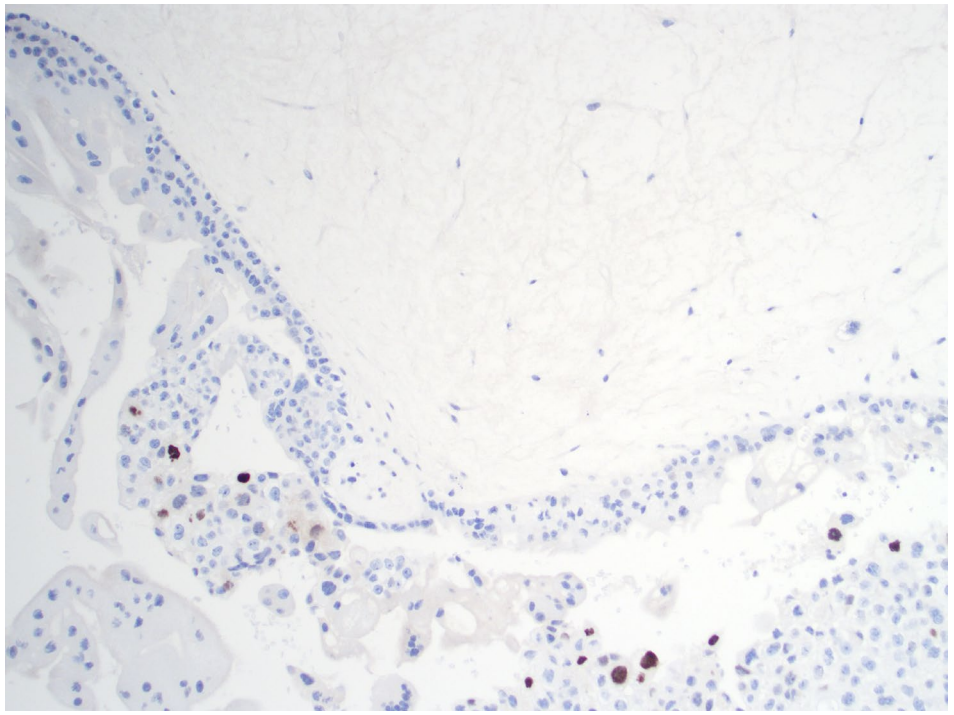
Note a biparental profile with excess homozygous paternal allelic copies at each STR locus in villi without trophoblastic hyperplasia, and a homozygous paternal-only profile in villi with trophoblastic hyperplasia.

Diagnostic Options

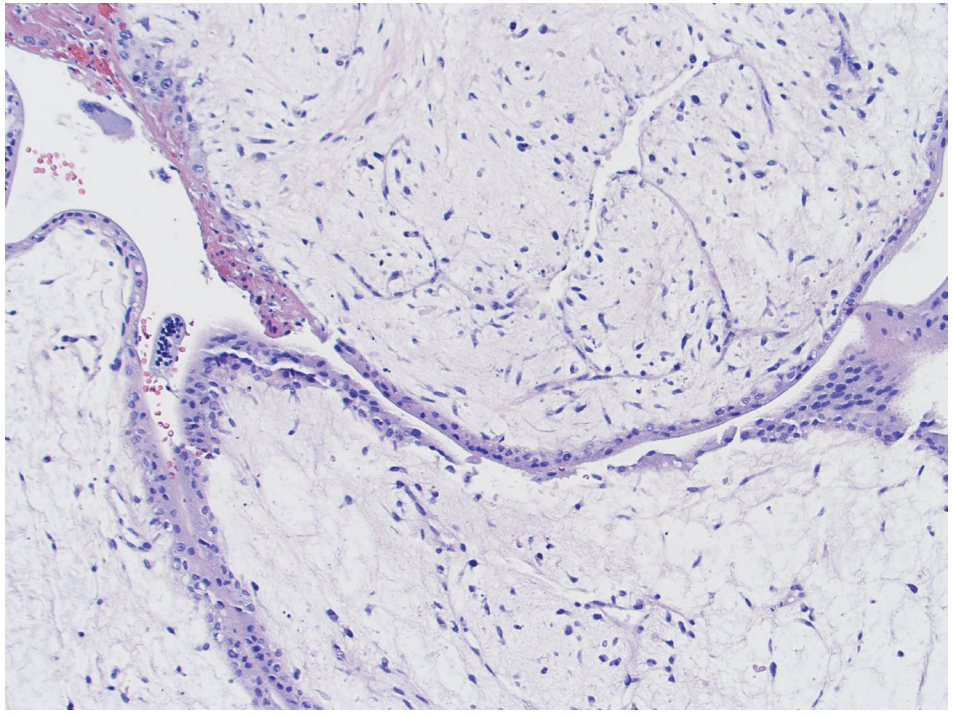
A. Partial Mole (PHM)
B. Complete mole (CHM)
D. Androgenetic biparental mosaic
C. CHM in androgenetic/biparental mosaicism

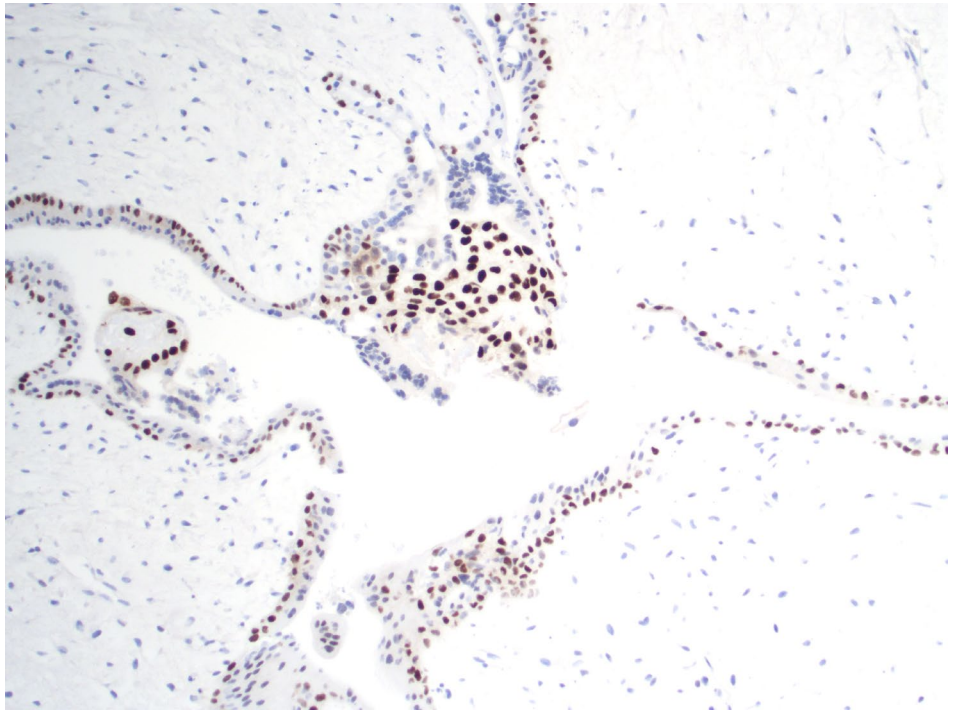
Villi with Trophoblastic Hyperplasia





Villi without trophoblastic hyperplasia





The majority of chorionic villi exhibit marked hydropic changes, including cistern formation and abnormal stromal histology. P57 immunostaining shows nuclear staining in the cytotrophoblast but is absent in the villous stromal cells. Additionally, scattered clusters of hydropic villi demonstrate abnormal trophoblastic proliferation with complete loss of p57 expression in both the cytotrophoblast and villous stromal cells. Comparative STR genotyping reveals a biparental profile with skewed overrepresentation of the paternal allele at all STR loci in most villi. In contrast, a homozygous STR profile is identified in villi with marked trophoblastic proliferation and loss of p57 expression in both the cytotrophoblast and villous stromal cells. These histological, p57 immunohistochemical, and genotyping findings indicate the diagnosis of a complete mole arising in an androgenic/biparental mosaic gestation. Please refer to the Y-GTD Case of November 2023 which describes an example of androgenetic/biparental mosaicism without a molar component.

Final Diagnosis: Complete Mole arising from Androgenetic/Biparental Mosaicism