



Supplemental Figure 2. Aberrant progressor, Pt 3 (endometrial polyp with gland crowding). The index case was initially diagnosed as NAH, but the pathology re-review diagnosis was endometrial polyp (EMP) with focal gland crowding, subdiagnostic of AH/EIN (ambiguous/difficult). Gland density was 16%. Pax2 was aberrant, being lost in >50% of the specimen, as was Pten (5-25%). To extend the NGS results, which revealed biallelic *ARID1A* mutations (Fig. 8), the ancillary AH/EIN immunostains Arid1a and Mlh1 were performed. Although focal, definitive Arid1a loss was noted in the index case. Subsequent biopsy showed PE with focal stromal breakdown, confirmed on re-review. In this 2nd specimen, Pten was retained, while Pax2 was focally lost in 6-25% of the specimen. Arid1a loss was not detected. Pax2 loss coincided with a small area of crowded glands that was not initially noted in either the original diagnosis or in the formal re-review; gland density was 17% in the overall fragment and 49% in the smaller inner area of clustered glands. The subsequent FIGO 1 adenocarcinoma showed diffuse loss for Pax2, Pten, Arid1a, and Mlh1 (Mlh1 was preserved in the preceding samples). The findings are consistent with Pax2, Pten, and Arid1a loss early in neoplastic progression, with Mlh1 loss as a later event.