

Case 25

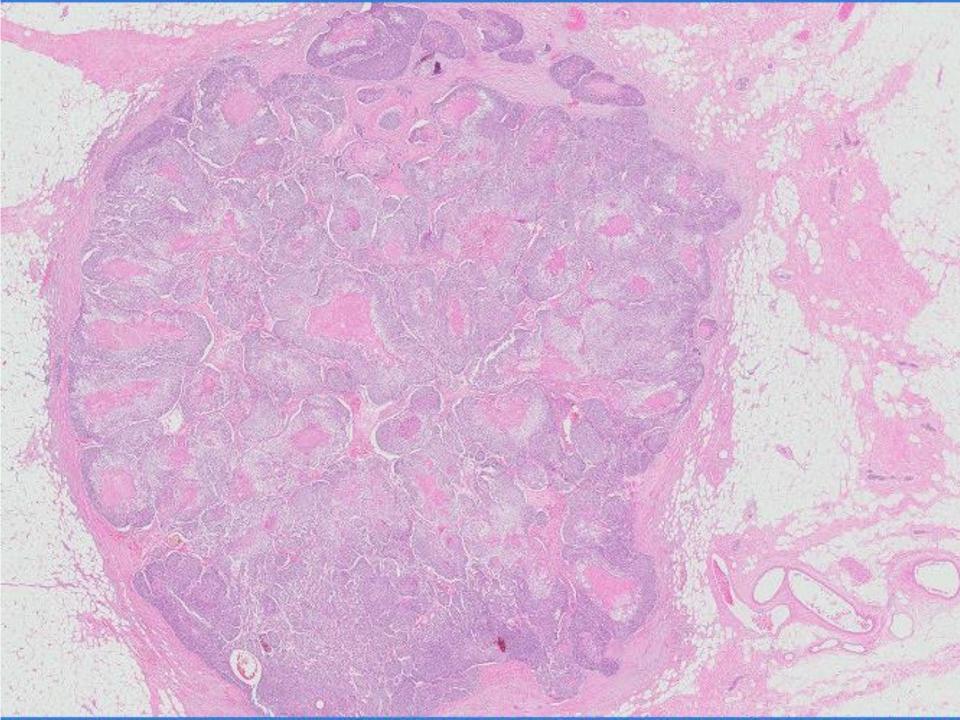
55 year old Chinese woman underwent mastectomy for a left breast tumour.

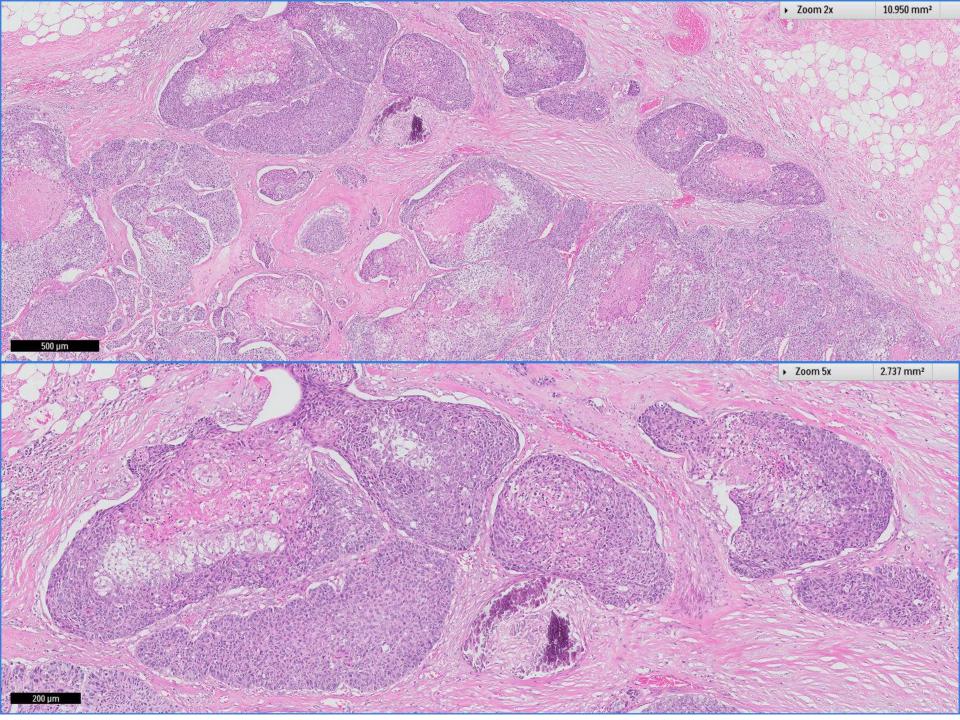


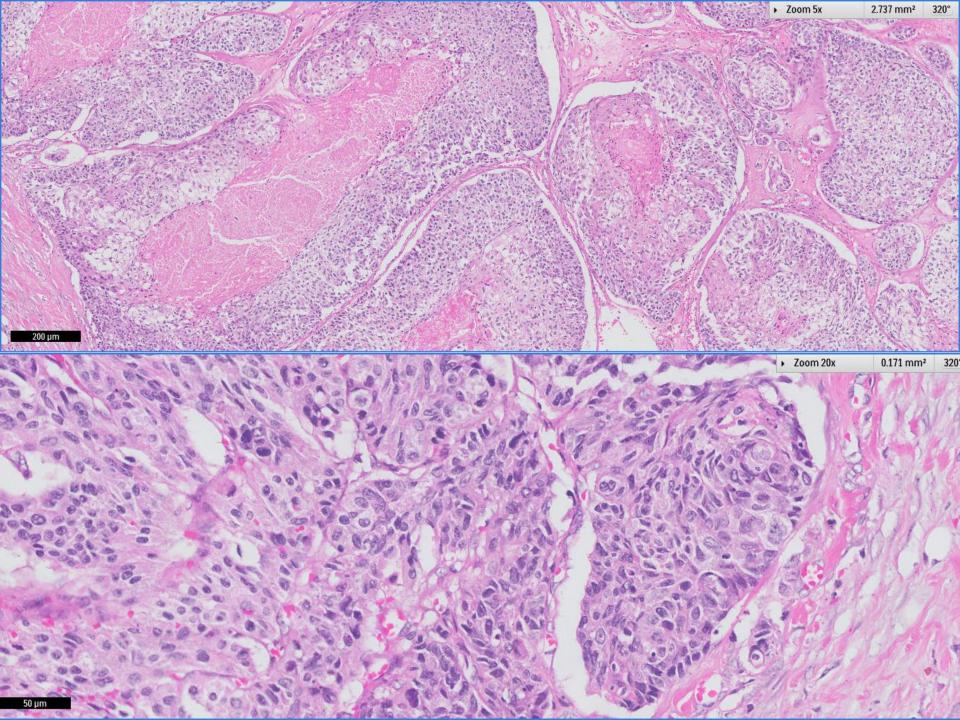


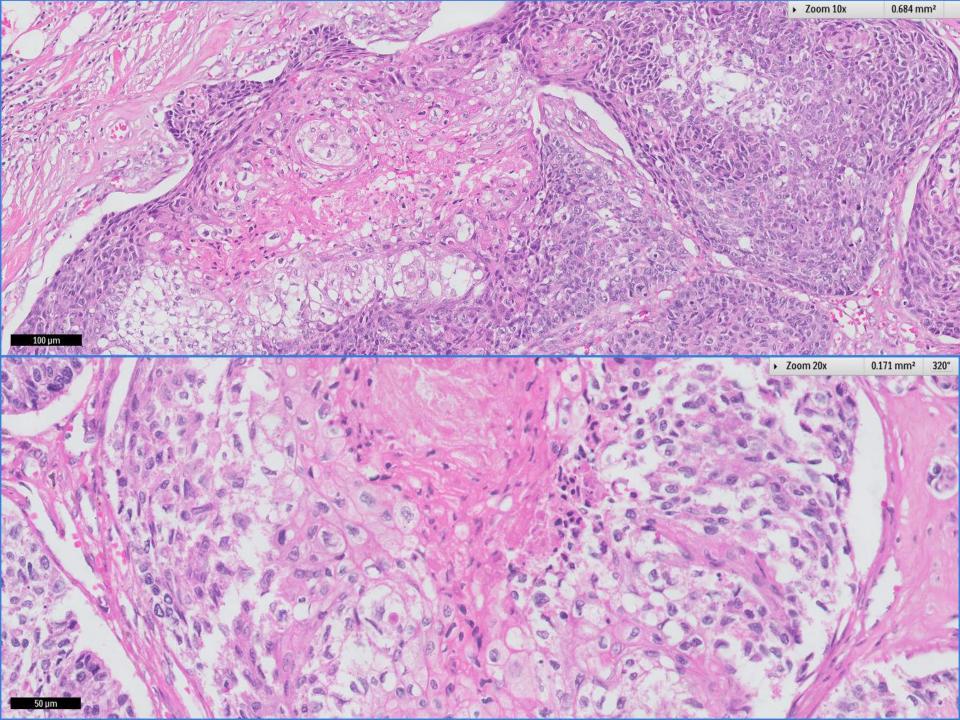


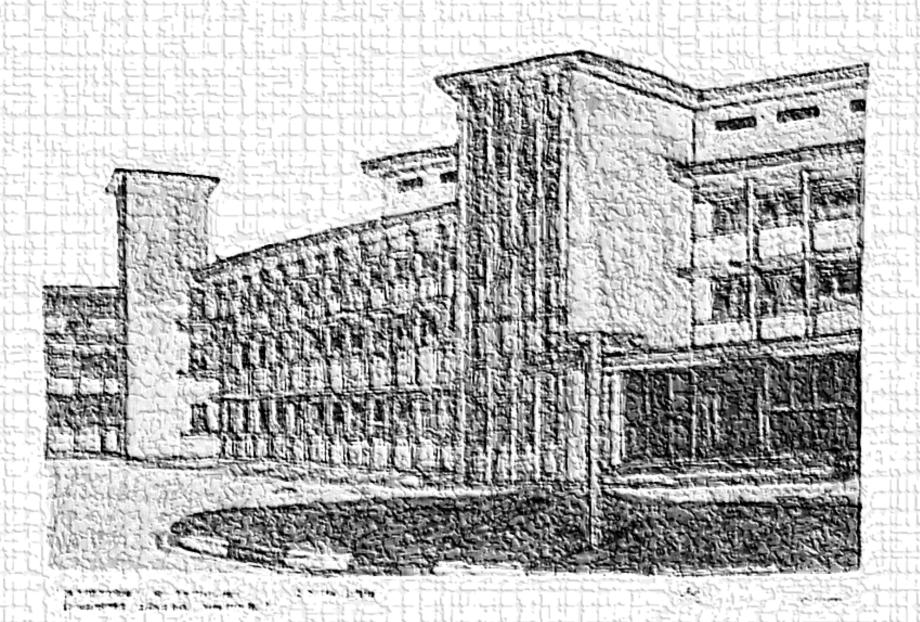




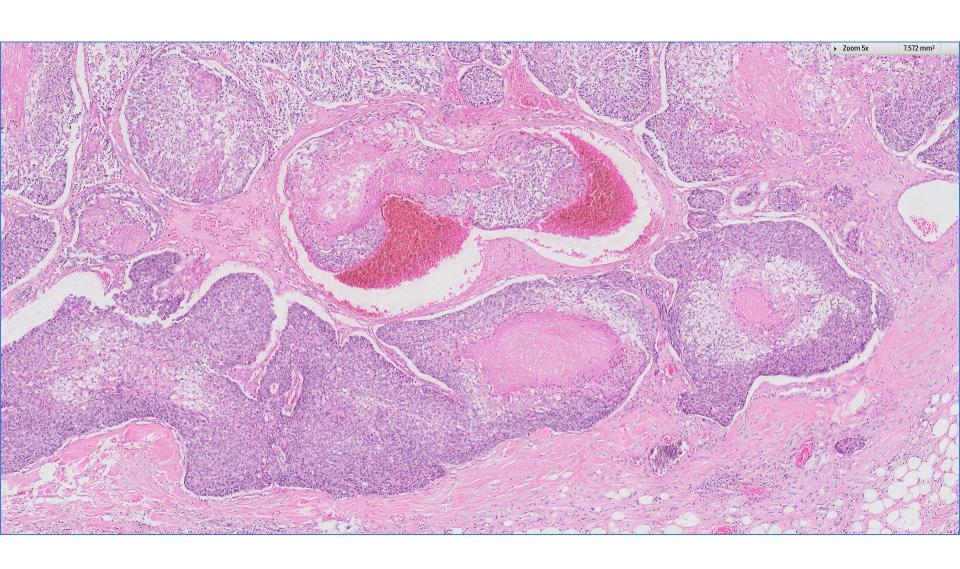


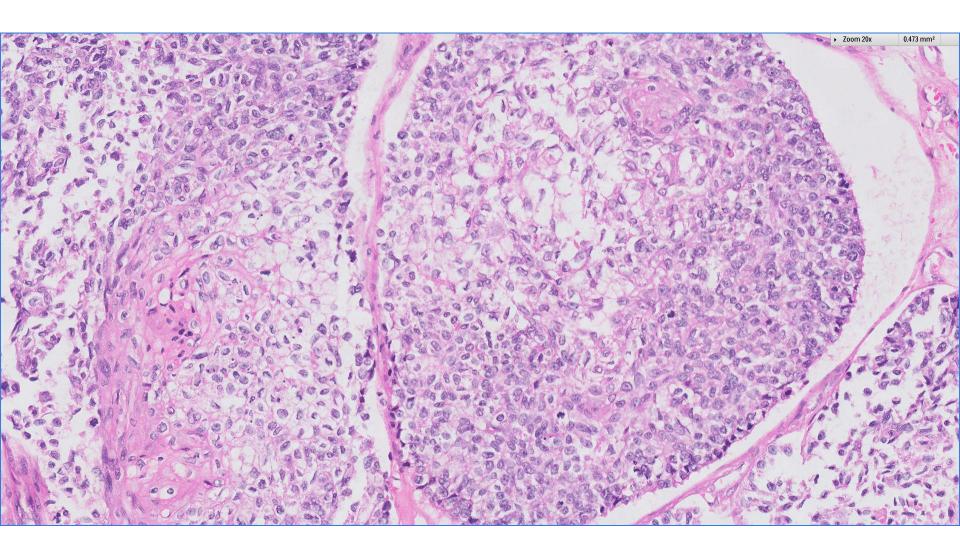


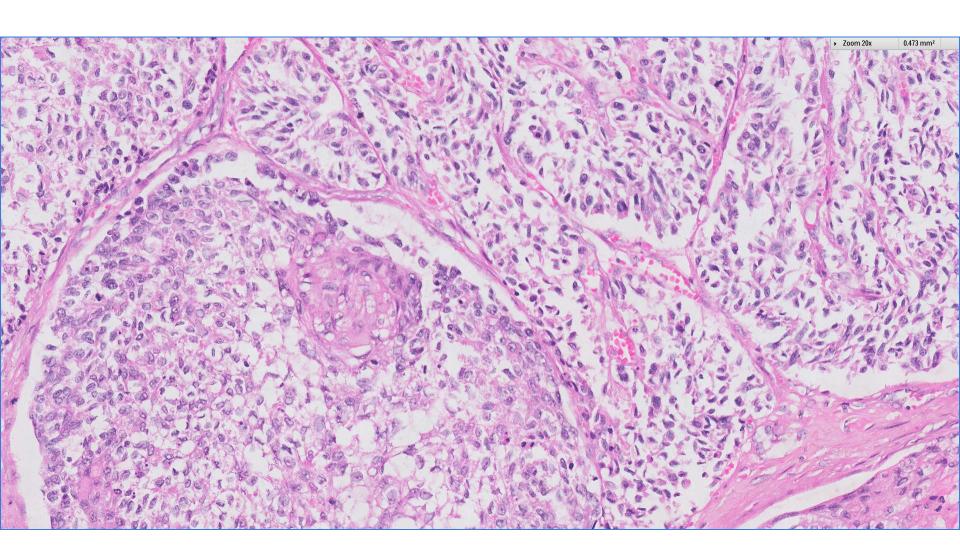


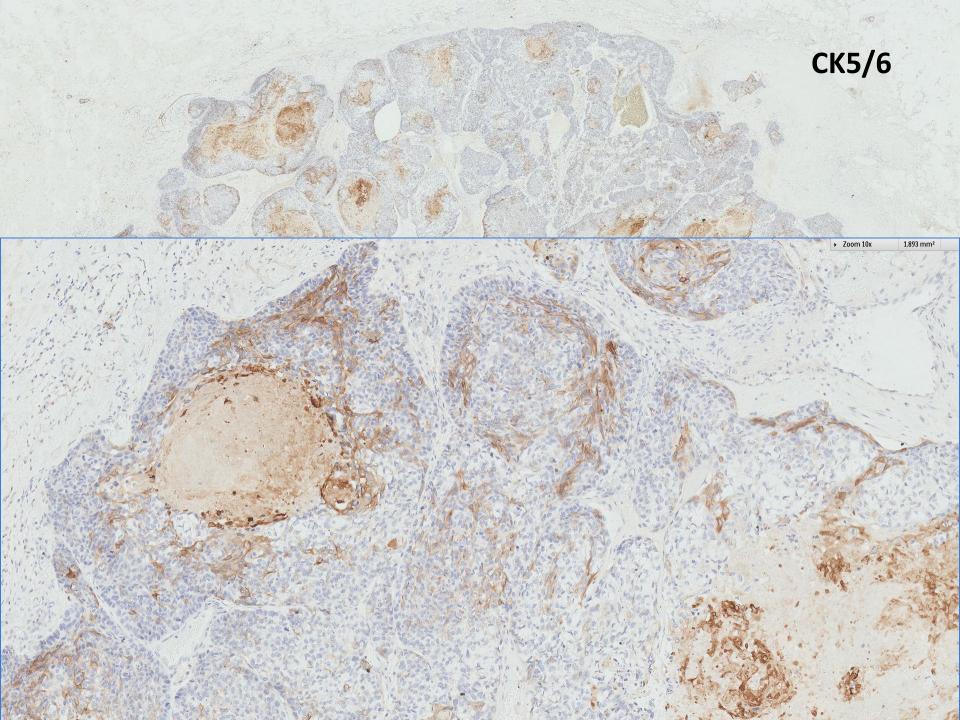


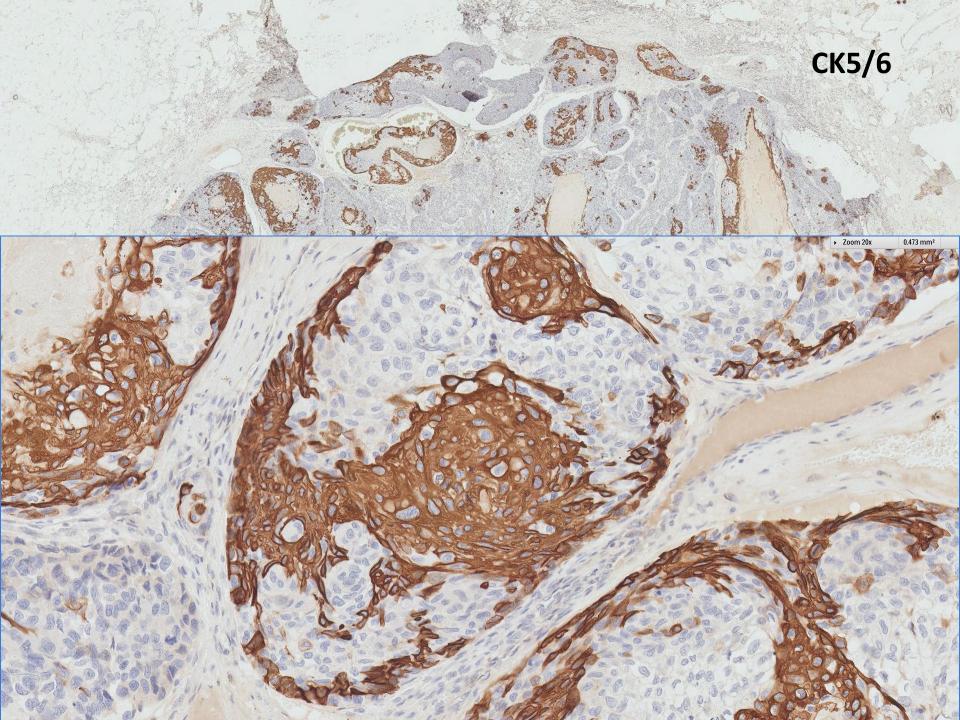


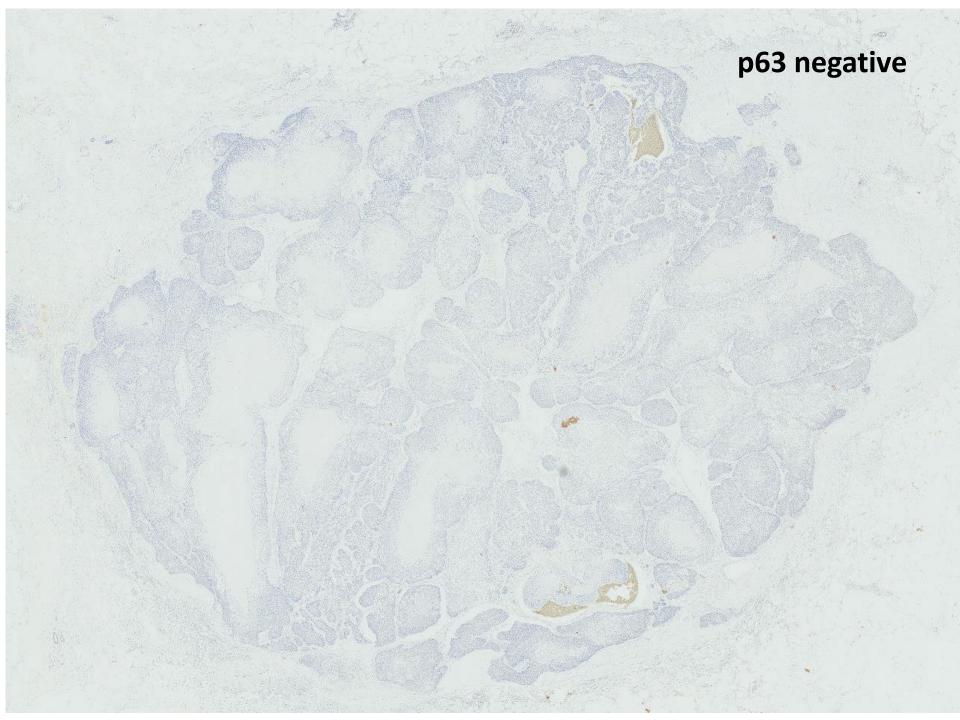












Diagnosis

Left breast, mastectomy ~

Metaplastic carcinoma, squamous cell type, 12mm, grade 3.

ER negative, PR negative, cerbB2 negative. Basal markers positive.









Triple Negative Breast Cancer: Outcome Correlation With Immunohistochemical Detection of Basal Markers

Abstract: We earlier evaluated the relationship of 653 triple negative breast cancers (TNBC) with basal immunophenotypic expression by using antibodies to basal cytokeratins (CK 5/6, CK14, CK17, 34BE12), p63, smooth muscle actin (SMA), epidermal growth factor receptor, and CD117, and found that a triple panel of CK14, 34BE12 and epidermal growth factor receptor determined 84% of our cases to be basal-like. Women with basal-like TNBC tended to be younger (P = 0.04), have histologically higher-grade tumors (P = 0.047), with positive nodal status (P = 0.047), than those whose tumors were nonbasal-like. Using univariate Cox regression analysis, tumor size (P = 0.003), histologic grade (P = 0.006), and nodal status (P = 0.017) were significant factors for disease-free survival (DFS) among TNBC, whereas age (P = 0.004), tumor size (P = 0.001), histologic grade (P < 0.001), nodal status (P = 0.011), lymphovascular invasion (P = 0.032), and pushing borders (P = 0.042) were important for overall survival (OS). On multivariate analysis, age was statistically significant for both DFS and OS (P = 0.033, 0.001 respectively), whereas histologic grade was important for OS (P < 0.001). Kaplan Meier curves showed CK17 positivity to impact adversely on DFS (P = 0.003) and OS (P = 0.014), whereas CD117 positive staining was accompanied by diminished OS (P = 0.036). SMA expression in TNBC however, revealed a trend for improved DFS (P = 0.05). Our findings indicate that basal-like TNBC are associated with adverse clinicopathologic parameters, and that individual biologic markers of CK17, CD117, and SMA have prognostic implications on survival. Possibilities exist for future targeted therapy for this challenging group of breast cancers.

Key Words: triple negative, basal-like, immunohistochemistry, CK17, CD117, survival (Am J Surg Pathol 2010;34:956-964)

