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**Introduction:** Features of the tumour microenvironment, including tumour necrosis, tumour budding, and tumour-stroma percentage (TSP) have been reported to have prognostic value in some cancers. However, their role in breast cancer is unclear.

**Methods:** Patients who underwent surgery for primary operable breast cancer in two units between 1995–2007 were included. Clinicopathological details and survival data were collected from patient records and local laboratory systems. Haematoxylin and eosin-stained slides were visually assessed for tumour necrosis, tumour budding and TSP. Kaplan Meier and Cox regression analysis were carried out for associations with cancer specific survival (CSS).

**Results:** 1188 patients were included in the study. 234 breast cancer deaths were recorded during a median follow up of 158 months (26–183). In ER positive disease, necrosis was independently associated with worse CSS (HR1.46, 95%CI 1.03–2.08,  $p=0.033$ ). In ER negative disease, necrosis (HR 2.44, 95%CI 1.34–4.43,  $p=0.003$ ), high budding (HR2.47, 95%CI 1.56–3.89,  $p<0.001$ ) and high TSP (HR1.64, 95%CI 1.06–2.53,  $p=0.026$ ) were independently associated with worse CSS. A combined score of tumour necrosis, tumour budding and TSP (0=all low, 1=one high, 2=two high, 3=all high) was associated with worse CSS in ER positive disease (score 3 v 0: HR 2.66, 95%CI 1.35–5.26,  $p=0.005$ ), in ER positive, node negative disease (HR 6.42, 95%CI 1.77–23.23,  $p=0.005$ ), and in ER negative disease (HR 8.11, 95%CI 2.68–24.51,  $p<0.001$ ).

**Conclusion:** A combined score of tumour necrosis, budding and TSP predicts CSS in primary operable breast cancer. It stratifies risk in ER negative disease, and identifies a high-risk group in ER positive disease.

## 32. DECODING IDIOPATHIC GRANULOMATOUS MASTITIS: HAVE WE REACHED THE END OF THE TUNNEL?

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**Introduction:** Idiopathic granulomatous mastitis (IGM) is an evolving new problem with variable presentation. Non-availability of definite etiological factor has made this disease a terrorizing enigma.

**Aims and Objective:** To compare the outcomes of different modalities of treatments in IGM and to establish the standard of care.

**Methodology:** A prospective randomized trial was conducted. 70 cases of histopathologically proven granulomatous mastitis were taken up. 15 cases with diagnosis of tuberculosis received antitubercular therapy and were excluded from the study. Remaining 55 cases were randomized into 3 groups. Group A (steroid therapy), Group B (wide local excision) and Group C (wide local excision with total duct excision). The cases were followed up for a period of 3 to 8 months. The results were statistically evaluated.

**Results:** The 3 groups were equally matched as regards age, pregnancy, lactation, significant hyperprolactinaemia and reactive arthritis. The recurrence rate in Gr A, B and C were 26%, 75% and 0% respectively. Superiority of Gr C over Gr B was statistically significant ( $p=0.0003$ ). In 5 out of 13 cases of Gr C, ductal communication was histopathologically evident.

**Discussion:** IGM is initiated by ductal leakage leading to prolactin (cytokine like immunomodulatory function) induced periductal parenchymal destruction. Recent evidences strongly supports this newly found role of prolactin. IGM, therefore, is a disease of the mammary ducts and en bloc duct excision is curative. Empirical steroid and immunomodulator use is not without side effects and comes at the cost of poor patient compliance.