

#1584 Insulin-like growth factor binding protein 3 and breast cancer recurrence. Yu H¹, Levesque MA², Kinosravi MJ³, Diamandis EP², Clark GM⁴. ¹Diagnostic Systems Laboratories, Inc., Webster, TX 77598; ²Mount Sinai Hospital, Toronto, Canada M5G 1X5; ³Diagnostic Systems Laboratories Canada, Toronto, M5G 1X5; ⁴University of Texas Health Science Center at San Antonio, San Antonio, TX 78284.

Most lab experiments show that insulin-like growth factor binding protein 3 (BP-3) inhibits the mitogenetic effect of IGFs in breast cancer cells; however, clinical studies suggest high levels of BP-3 are associated with poor prognosis. To further assess the role of BP-3 in breast cancer progression, we examined BP-3 in relation to breast cancer recurrence using a nested case-control study design. Included in the study were 100 patients whose disease had recurred (median time to relapse after surgery 33 months) and 100 patients who were disease-free for 5 years after surgery. Cases and controls were matched on age at diagnosis and year of diagnosis, and were selected from a cohort of 1000 breast cancer cases who had been followed for more than 4 years. BP-3 levels in tumor tissue extracts were measured with an ELISA. Although recurrent patients tended to have higher BP-3, the difference was not significant ($p=0.14$). Slightly increased risk for recurrence among patients with higher BP-3 was noted in univariate analysis, but was not found in multivariate analysis (conditional logistic regression). The study finds no evidence that BP-3 has independent prognostic value for breast cancer recurrence, which is consistent with a previous finding.

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