







### High Risk T1 Bladder Cancer

- Grade 3
- Tumor >5 cm
- Multifocal
- Multiple recurrences
- Treat with maximum TURBT
  - RT alone (28 patients)
  - Platinum based chemo + 55.8 Gy RT (113 patients)
  - 48 months median F/U

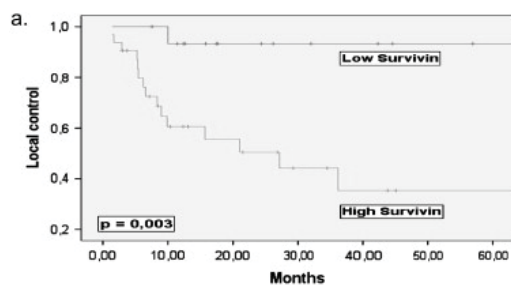
Weiss, C. et al. J Clin Oncol 24:2318-2324, 2009

### Survivin in Bladder Cancer

- Protein regulates cell division and inhibition of apoptosis
- Overexpressed in human tumors
- Possible marker for early detection of bladder cancer

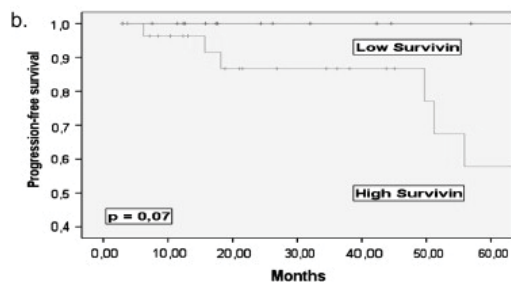
Weiss, C. et al. IJROBP V74(5): 1455-1460, 2009

### Survivin Over-Expression Predicts XRT Bladder Tumor Control



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### Progression-free Survival



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