Prognostic and Predictive Value of P53, Bcl2, Rb and Egfr for Bladder Preservation in Invasive Bladder Carcinoma Treated by Trimodality Approach

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Abstract:

Purpose: To update long-term results with selective organ preservation in invasive bladder cancer using aggressive transurethral resection of bladder tumor (TURBT) and radiochemotherapy (RCT) and to identify prognostic and predictive value of the biomarkers ;p53, pRB, BCL2 and EGFR. Patients and Methods: Between 2000 and 2006, a total of 55 patients with T2-T3 bladder cancer were enrolled in 2 sequential bladder-sparing protocols including aggressive TURB and RCT. From September 2000 to May 2003, 25 patients (in protocol no. 1) were treated by TURBT followed by radiotherapy 46 Gy with concurrent cisplatin 20 mg/m² day1-5, followed for complete and partial responders by radiotherapy 20 Gy with concurrent cisplatin (same dose) on the last five days. From December 2004 to April 2006, thirty patients were entered in protocol no. 2 that consisted of radiotherapy 60 Gy with concurrent Cisplatin 75 mg/ m2 q. 3 ws and Gemcitabine 300 mg / m2 D 1, 8 and 15 q. 3 ws for 2 cycles. In case of invasive residual tumor or recurrence, salvage cystectomy was recommended. All specimens were examined for expression of the biomarkers (p53, bc12, Rb and EGFR) using immunohistochemical staining. Results: The median follow-up for all patients is 30 months (range 484) and 38 months (range 984) for patients in P1 and 22 months (454) for patients in P2. The actuarial 5-year OS were 58 % (SE 5), 52% (SE 7) and 61% (SE 6),for the whole series, P1 and P2 protocols respectively, (P =0.270). The corresponding figures for cancer specific survival (CSS) were 60%, 55% (SE 7) and 63% (SE 4), (P = 0.452). The 5-year actuarial OSB for all series, P1 and P2 protocols were 51% (SE 6), 46% (SE 7) and 55% (SE 9), respectively, (P = 0.323). For all patients, altered expression of p53, bc12, pRb and EGFR were detected in (47.3%, 56.4%, 52.7% and 40% respectively. The results of UVA showed that tumor stage and altered expression of pRB, BCL2 and EGFR were significantly associated with CSS and OS (P

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