

## **PATHOLOGY OF BLADDER CANCER AMONG DIABETIC PATIENTS UNDERGOING RADICAL CYSTECTOMY WITH A HISTORY OF PIOGLITAZONE (ACTOS) USE**

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**Introduction:** Pioglitazone (Actos) has been shown to increase bladder cancer risk. Cancer pathology among pioglitazone users has not been characterized. We compare surgical pathology among diabetic users and non-users, as well as non-diabetic patients who underwent radical cystectomy for bladder cancer.

**Methods:** Our single-center, prospectively-maintained bladder cancer database was reviewed. Patient demographics, surgical pathology, and patient outcomes were evaluated. Diabetic history and use of pioglitazone was determined from chart analysis and patient interview.

**Results:** From April 2005 to October 2011, 204 patients undergoing radical cystectomy were identified. 33 (16.2%) were diabetic and 171 (83.8%) were non-diabetic. Among diabetic patients, 9 (27.3%) had used pioglitazone. Median therapy duration was 14 (6-120) months. Pathology in non-diabetic patients was T1 in 17 (9.9%), T2 in 38 (22.2%), T3 in 44 (25.7%), and T4 in 31 (18.1%). Pathology among diabetic non-users was T1 in 1 (4.2%), T2 in 7 (29.2%), T3 in 7 (29.2%), and T4 in 4 (16.7%). Pathologic stage among diabetic users was T1 in 1 (11.1%), T2 in 3 (33.3%), T3 in 3 (33.3%), and T4 in 1 (11.1%). Lymph node involvement in non-diabetics, diabetic non-users, and diabetic users was 25.7%, 33.3%, and 33.3%, respectively. Cancer-specific death was 60.3% in non-diabetics, 58.3% in diabetic non-users, and 75% in diabetic users.

**Conclusions:** In our experience, diabetics have similar stage distribution regardless of Pioglitazone use. The rate of lymph node metastases and cancer specific death was similar across all groups.

Additional study and further follow-up will continue to better characterize this relationship.