**Supplemental Table 1: Treatment and outcome for 22 patients treated on compassionate use protocols**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site #** | **Pt #** | **Gender** | **Age** | **Tumor****location** | **Tumor Grade** | **MMC (mg)** | **RTGel (cc)** | **Treatment** **regimen** | **6 instillations** | **Outcome**  |
| 5 | 1 | M | 80 | Lt ureter and renal pelvis | LG | 20-40 | 10-20 | Once weekly | Completed  | PR |
| 10 | 2 | M | 75 | Lt lower pole calyces | HG | 20 40 | 1010 | Twice weeklyOnce weekly | Completed  | NR |
| 6 | 3 | F | 57 | Rt renal pelvis | LG | 10 | 5 | Once weekly | Completed  | PR |
| 10 | 4 | M | 67 | Rt distal ureter and renal pelvis | LG | 40 | 10 | Twice weekly | Completed | CR |
| 2 | 5 | M | 75 | Lt ureter | LG | 80 | 20 | Once weekly | Not completed (1/6) | NA(1) |
| 2 | 6 | M | 73 | Rt renal pelvis ­  | LG | 32 (x1)52 (x5) | 813 | Once weekly (PCN) | Completed | CR |
| 9 | 7 | M | 57 | Lt lower pole calyces | I/D | 48 | 12 | Once weekly | Not completed(3/6) | N/A |
| 14 | 8 | F | 92 | Rt renal pelvis | LG | 60 | 15 | Once weekly | Completed  | N/A(2) |
| 8 | 9 | M | 78 | Rt proximal ureter and lower renal pelvis  | HG | 60 (x2)90 (x1) | 15 | Once weekly | Not completed3/6  | N/A |
| 1 | 10 | F | 74 | Rt upper pole calyx | LG | 4466 | 1111 | Once weekly x 2 | Completed  | PR/NR |
| 9 | 11 | F | 65 | Rt proximal ureter | I/D(2) | 40 | 10 | Once weekly | Completed  | NR |
| 8 | 12 | M | 57 | Rt mid calyx ­ | LG | 60 (x5)90 (x1) | 15 | Once weekly (PCN)Monthly maint x 3 | Completed | CR |
| 7 | 13 | M | 66 | Lt ureter and renal pelvis and calyces | LG | 80 | 20 | Once weekly | Completed  | CR |
| 3 | 14 | M | 87 | Rt mid+distal ureter + renal pelvis+upper pole calyx | LG | 80 | 20 | Once weekly | Not Completed3/6 | N/A |
| 7 | 15 | M | 81 | Lt ureter and upper pole calyx | LG | 80 | 20 | Once weekly | Completed  | CR |
| 7 | 16 | M | 71 | Lt proximal ureter  | LG | 80 | 20 | Once weekly | Completed  | CR |
| 1 | 17 | M | 76 | Rt Renal pelvis | LG | 60 | 10 | Once weekly | Completed  | CR |
| 12 | 18 | M | 76 | Rt renal pelvis | LG | 40 | 10 | Once weekly (PCN) | Not completed | N/A |
| 13 | 19 | M | 88 | Rt renal pelvis | LG | 40 | 10 | Once weekly | Completed  | PR |
| 11 | 20 | M | 82 | Lt renal pelvis | LG | 60 | 15 | Once weekly | Not completed | N/A |
| 8 | 21 | F | 75 | Rt renal pelvis and ureter ­ | LG | 60 | 15 | Once weekly | Completed  | CR |
| 4 | 22 | F |  | Left ureter | LG | 64 | 16 | Once weekly | Completed  | PR(3) |
|  | LG – Low gradeHG – High grade I/D – Indeterminate gradeNA – Not assessable(1) Treatment discontinued due to diagnosis of metastatic pancreatic head carcinoma following treatment initiation |
|  | (2) Patient refused to undergo ureteroscopic evaluation; evaluated only by CT.(3) The patient underwent 3 additional monthly instillations of MitoGel and was found CR.**Supplemental Table 2: Durability of complete response in 8 patients** |
| **Pt #** | **Site** | **CR Durability (Months)** | **Maintenance** | **Recurrence** |
| **Y/N** | **Regimen** | **# of instillations** |
| 4 | 10 |  | 30 | N |  |   | N  |
| 6 | 1 |  | 28 | Y  | 1 every 3 months  | 5 | N |
| 12 | 2 |  | 6 | Y | Monthly | 3 | N |
| 13 | 7 |  | 4  | N |  |   | Y (1) |
| 15 | 8 |  | 8 | N |  |   | Y (2) |
| 16 | 8 |  | 9 | N |  |   | Y |
| 17 | 7 |  | 18 | N |  |   | N |
| 21 | 7 |  | PDE | N |  |   | N/A (3) |
|  |  |  |  |
|  | (1) a single 1mm lesion was found and removed ureteroscopically  |
|  | (2) a single 2mm tumor was found and removed ureteroscopically |

(3) Patient refuses to pursue follow-up

PDE – primary disease evaluation