**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 | 10  10 | | Twice weekly  Once 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) | 8  13 | | 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 completed  3/6 | N/A |
| 1 | 10 | | F | 74 | Rt upper pole calyx | LG | | | 44  66 | 11  11 | | 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 Completed  3/6 | 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 grade  HG – High grade  I/D – Indeterminate grade  NA – 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