**Tables**

**Table (1) Demographic data of the patients, tumor grading and staging:**

\*NMIBC: non-muscle invasive bladder cancer,\*\*MIBC: muscle invasive bladder cancer, \*\*\*Tumor staging was done according to TNM staging system described by European Association of Urology (16): Ta: Not infiltrating the submucosa cassock, T1: Infiltrating the submucosa cassock, T2a: Infiltrating the first half of the muscular tunic, T2b: Infiltrating the second half of the muscular tunic, T3a: Microscopic infiltration of peri-bladder fat, T3b: Macroscopic infiltration of peri-bladder fat, T4a: Infiltration of neighboring organs: prostate, seminal vesicles, uterus, vagina, T4b: Infiltration of the pelvic and / or abdominal wall, G1: low grade, G2: intermediate grade, G3: high grade, CIS: carcinoma in situ.

**Table (2): Comparison between NLRP4 gene expression in pre-surgical samples in NMIBC and MIBC patients groups:**

\* cycle threshold, \*\*standard deviation, \*\*\* standard error of the mean, high statistically significant difference (P value > 0.05) between NLRP4 gene expression in pre-surgical samples in NMIBC and MIBC patients groups.

**Table (3): NLRP4 gene expression in NMIBC patients group in pre-surgical samples in recurrent and non-recurrent cases of NMIBC:**

\* cycle threshold, \*\*standard deviation, \*\*\* standard error of the mean, (P value > 0.05) P value estimated by unpaired t test shows high statistically significant difference in NLRP4 gene expression levels in pre-surgical urine samples from recurrent and non-recurrent cases of NMIBC.

**Table (4): NLRP4 gene expression level after the 3rd dose of BCG in NMIBC recurrent and non-recurrent cases:**

\* cycle threshold, \*\*standard deviation, \*\*\* standard error of the mean, P value estimated by Man-Whitney test shows statistically significant ( P value > 0.05) difference between NLRP4 gene expression levels in urine samples obtained after the 3rd dose of BCG in NMIBC recurrent and non-recurrent cases

**Table (5): NLRP4 gene expression level at the follow up cystoscopies (3 and 6 months after TURBT) in NMIBC recurrent and non-recurrent cases:**

\* Cycle threshold, \*\*standard deviation, \*\*\* standard error of the mean, P value estimated by Man-Whitney test shows statistically significant difference (P value > 0.05) between NLRP4 gene expression levels estimated in urine samples obtained at 3 and 6 months after TURBT in NMIBC recurrent and non-recurrent cases

**Table (6): IL-1β levels in recurrent and non-recurrent cases after 3rd dose BCG instillation and at 3rd month follow up:**

\* Interleukin, \*\* Standard deviation, P value estimated by un-paired T test shows highly significant statistical difference (P value > 0.05) between IL-1β level after 3rd dose BCG instillation in recurrent and non-recurrent cases of NMIBC in urine samples taken at 3 and 6 month follow up following TURBT.

**FIGURE 1:** **COMPARISON BETWEEN NLRP4 GENE EXPRESSION LEVELS IN URINE SAMPLES COLLECTED AT DIFFERENT INTERVALS FROM 30 NMIBC (20 NON-RECURRENT CASES AND 10 RECURRENT CASES) AND 17 MIBC CASES:** NLRP4 gene expression levels were estimated by RT-PCR and expressed as mean values of CT values (±SD). Comparison between NLRP4 gene expression in urine samples (A) pre-surgically (before TURBT) in NMIBC and MIBC patients groups, show high statistically significant difference, CT values were higher among MIBC group, representing low gene expression level (P value = 0.0004estimated by Man-Whitney test). CT values are inversely proportional to the actual gene expression level (B) pre-surgically in recurrent and non-recurrent cases of NMIBC, showed high statistically significant difference in CT values, being higher in non-recurrent cases representing low gene expression level (P value=0.0001estimated by unpaired t test) (C) pre-surgical levels compared to levels in samples taken after the third dose of BCG intravesical instillation of the induction therapy, showed statistically significant lower CT values after the 3rd dose BCG, representing higher shooting levels (P value=0.0001\*\*\*\* obtained by Man-Whitney test) (D) after the 3rd dose of BCG in recurrent and non-recurrent cases, showed statistically significant higher fold changes in gene expression levels in recurrent cases (P value=0.001,estimated by Man-Whitney test)(E) after the 3rd month post-surgically in recurrent and non-recurrent cases, showed statistically significant lower fold changes in gene expression levels in recurrent cases (P value=0.0001, estimated by Man-Whitney test)(F) at 6th month follow up post-surgically in recurrent and non-recurrent cases, showed statistically significant lower fold changes in gene expression levels in recurrent cases (P value=0.0018, estimated by Man-Whitney test).

\* Number of asterisks represents P value as following (P ≤ 0.05\*, P ≤ 0.01\*\*, P ≤ 0.001\*\*\*, P ≤ 0.0001\*\*\*\*), NMIBC: Non-muscle invasive bladder cancer, MIBC: Muscle invasive bladder cancer, Rec.: Recurrent, Non-Rec: Non-recurrent, Bef.: Before, Sur.: Surgery, Aft.: After.

**Figure 2:** **COMPARISON BETWEEN IL-1Β** **LEVELS IN URINE SAMPLES COLLECTED AT DIFFERENT INTERVALS FROM 30 NMIBC (20 NON-RECURRENT CASES AND 10 RECURRENT CASES) AND 17 MIBC CASES ESTIMATED BY ELISA TECHNIQUE, REPRESENTED BY MEAN VALUES (±SD)**: Comparison between IL-1β level (A) in NMIBC and MIBC patients groups showing higher statistically significant level in NMIBC (P value > 0.0001, estimated by un paired Man-Whitney test) (B) before TURBT surgery and before the 3rd dose of BCG intravesical instillation, showing higher statistically significant level in pre-surgical samples (P value = 0.0006estimated by paired Wilcoxon test) (C) before and after 4 hours of the 3rd dose BCG, showing higher statistically significant level after the 3rd dose instillation (P value = 0.0001,estimated by paired Wilcoxon test) (D) before surgery and at the third month follow up, showing higher statistically significant level before surgery (P value = 0.0589\* obtained by paired t test) (E) 4 hours after the 3rd dose of BCG and at the 3rd month follow up, showing higher statistically significant level after the 3rd dose (P value > 0.0001estimated by paired Wilcoxon test) (F) after the third dose BCG in recurrent and non-recurrent cases, showing higher statistically significant level in recurrent cases (P value = 0.0001,estimated by unpaired T test) (G) at the 3rd month follow up in recurrent and non-recurrent cases, showing higher statistically significant level in non-recurrent cases (P value = 0.0001, estimated by unpaired test).

\* Number of asterisks represents P value as following (P ≤ 0.05\*, P ≤ 0.01\*\*, P ≤ 0.001\*\*\*, P ≤ 0.0001\*\*\*\*), NMIBC: Non-muscle invasive bladder cancer, MIBC: Muscle invasive bladder cancer, Rec.: Recurrent, Non-Rec: Non-recurrent, Bef.: Before, Sur.: Surgery, Aft.: After.