

Comparison of surgical and conservative treatment of muscular invasive urothelial carcinoma in bladder: A study at Tishreen University hospital (2016-2022)

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Abstract: This research aims to study muscular invasive urothelial carcinoma patients in the bladder in terms of their disease progression, after studying the management methods used and the treatments used after surgical intervention, and the consequent change in survival rate and quality of life.

Patients with invasive urothelial carcinoma undergo multiple treatment procedures, and some of these procedures are large and carry a high risk to the patient's life and quality of life, and some patients are subject to major therapeutic interventions and they are not candidates for it, so it was necessary to study extensively for patients with this type of cancer

Index Terms- Radical cystectomy, curettage with radiotherapy, curettage with chemotherapy, urothelial carcinoma, Tishreen university hospital.

I. INTRODUCTION:

T Urothelial Carcinoma is considered an important medical problem in the clinical practice; it is divided into muscle-invasive and non muscle-invasive. The muscle-invasive type is considered as a systemic disease at 95% of patients, that has an effect on the quality of life and survival.

Aim and importance of the study:

The aim of this study is to understand the progression of muscle-invasive bladder carcinoma and to know the best method in management of it analysis different ways of management.

The patients of muscle-invasive bladder carcinoma undergo different ways of management methods, but these may have high risk on the quality of life and survival. So this study included a multi methods of treatment.

Patients and methods:

The study included muscle-invasive bladder carcinoma conditions that admit at urological department at Tishreen University Hospital, in the period between 2016-2022. The study was prospective and retrospective.

The management modalities was included:

1. Radical cystectomy.
2. Bladder preservation treatment, which includes:
 - TURBT+
 - a. Radiotherapy
 - b. Chemotherapy

C. TriModal therapy (TMT)

Results:

The study included 123 males and 13 females, the majority of patients were in the 7th decade of life. There were 116 smoker patients. Gross hematuria was the most common admission complain at the first visit, gross hematuria and LUTs were the most common complains through the study. The radiographic investigation showed that the 61.03% of patients have multi focal bladder tumor. The pathologic results showed that the most common histologic type was TCC with a percentage of 94.12%. Radical cystectomy was applied in 40 cases, while bladder preservation management was applied in 96 cases. In bladder preservation management: 33 patients undergo chemotherapy, 17 patients undergo radiotherapy, and 46 patients undergo TMT.

Discussion:

We can see from the table that the lowest mortality rate is for the group that is underwent to curettage with chemotherapy, and the highest survival rate is for the group that underwent radical cystectomy, while the lowest survival rate is for the group that received radiotherapy only, and that is for patients at PT2 cancer stage.

Whereas for patients at PT3 cancer stage, we can see that the lowest mortality rate is for group underwent radical cystectomy in addition to patients underwent to curettage with chemotherapy, and the highest survival rate is for the group that is underwent to the mutual triple therapy, while the lowest survival rate is for the group underwent to radiotherapy only.

Concerning patients with PT4 cancer stage, the highest survival rate is for group that underwent radical cystectomy, however the lowest survival rate is for group that is underwent to radiotherapy only, knowing that all patients in this group had died at the end of the study.

CONCLUSION

- 1- Muscle-invasive bladder carcinoma usually manifest after the 5th decade of age, with a peak at the 7th decade.
- 2- All types of smoking are important risk factor to develop a bladder carcinoma. Quitting smoking or never beginning it considered an important prevention factor.
- 3- Gross hematuria is the most common complain that the patient could consult for, so it should not be ignored.
- 4- The early diagnosis of bladder carcinoma is important to improve the prognosis and survival, and it plays a role to prevent progression to muscleinvasive carcinoma and spreading metastases.
- 5- The incidence of muscle-invasive carcinoma is more common among men than women.
- 6- Radical cystectomy is the best choice for patients with PT2 tumors who can undergo surgery.
- 7- TMT is the best choice for patients with PT3 tumors or patients who can't undergo surgery.
- 8- TMT is the best choice of bladder preservation treatment.
- 9- Chemotherapy isn't recommended alone. 10- Radiotherapy isn't recommended alone.
- 11- There is no relation between the site of bladder tumor and the progression or prognosis of the disease.

	<i>PT2</i>				
<i>Received therapy</i>	Number of patients	Patients percentage%	Mortality	Mortality percentage%	Survival rate (month)
Radical cystectomy	25	39.06%	20	80.00%	22.43
Curettage with radiotherapy	6	9.38%	6	100.00%	8.43
Curettage with chemotherapy	12	18.75%	8	66.67%	12.93
Mutual triple therapy	21	32.81%	18	85.71%	21.37
Total	64	100.00%	52	81.25%	18.98

	<i>PT3</i>				
Received therapy	Number of patients	Patients percentage%	<i>Mortality</i>	Mortality percentage%	Survival rate (month)
Radical cystectomy	10	16.67%	8	80.00%	17.24
Curettage with radiotherapy	10	16.67%	10	100.00%	9.51
Curettage with chemotherapy	15	25.00%	12	80.00%	10.83
Mutual triple therapy	25	41.67%	23	92.00%	18.51
Total	60	100.00%	53	88.33%	14.88

	PT4				
Received therapy	Number of patients	Patients percentage%	Mortality	Mortality percentage%	Survival rate (month)
Radical cystectomy	5	41.67%	5	%100.00	17.24
Curettage with radiotherapy	1	8.33%	1	100.00%	9.51
Curettage with chemotherapy	6	50.00%	6	100.00%	10.83
Total	12	100.00%	12	100.00%	14.88

	Age				
Age (years)	Number of patients	Patients percentage%	Mortality	Mortality percentage%	Survival rate (month)
[50-59]	32.00	23.53%	28.00	87.50%	14.85
[60-69]	58.00	42.65%	51.00	87.93%	15.43
[70-79]	28.00	20.59%	25.00	89.29%	16.33
<50	5.00	3.68%	3.00	60.00%	15.91
>80	13.00	9.56%	11.00	84.62%	11.87
Total	136	100.00%	117	86.03%	14.8