

# EVALUATION OF CLINICAL DEVELOPMENT OF TWO PATIENTS WITH URINARY BLADDER CANCER BEFORE AND AFTER CHEMOTHERAPY

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## Background

Urinary bladder cancer is formed in the tissues of the bladder. They are usually transitional carcinomas which start from the cell layer surrounding the inner bladder. Other types include squamous cell carcinoma (cancer that begins in thin, flat cells) and adenocarcinoma (cancer that begins in the cells that make and release mucus and other fluids). The purpose of this study is the recording of the number of circulating tumor cells of two patients with bladder cancer over time, before and after chemotherapy.

## Materials and methods

Non-hematologic origin cells were isolated from the blood of 2 male patients with bladder cancer. Afterwards, from these cells circulating tumor cells (CTCs) were isolated and cultured in appropriate medium. Simultaneously the blood of patients was analyzed by flow cytometry, by using specific markers for identification of CTCs. In order to export results, the two patients were assessed on the number of circulating tumor cells after three and six months respectively, before and after chemotherapy.

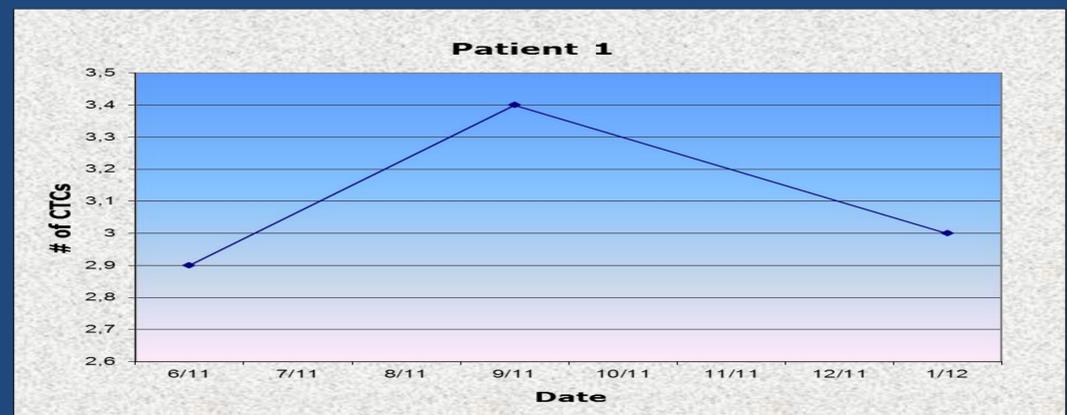


Fig 1. Variation of number of CTCs number over time in patient 1.

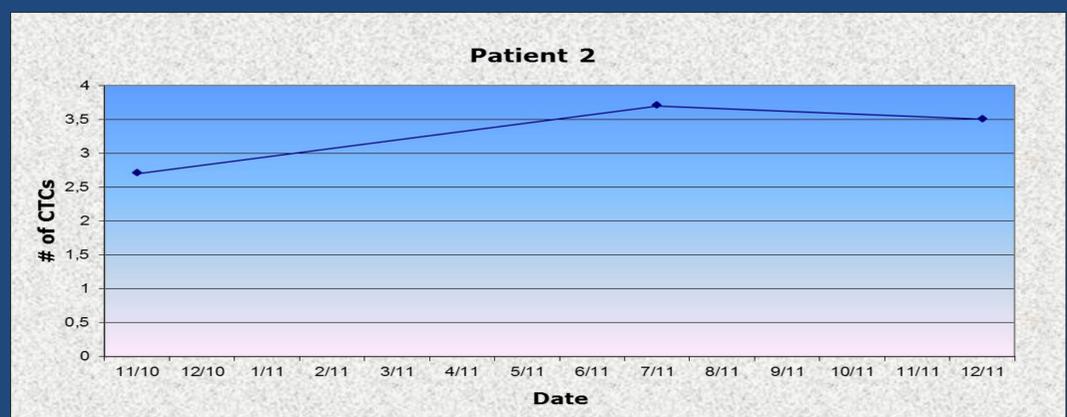


Fig 2. Variation of number of CTCs number over time in patient 2.

SAMPLE	STAGE	Previous # of CTCs		Current # of CTCs (date of follow up)		# of CTCs after follow up		Clinical evaluation
		Date	# of CTCs	Date	# of CTCs	Date	# of CTCs	
patient 1	Unknown	14/6/2011	2,9cells/ml	12/9/2011	3,4cells/ml	18/1/2012	3cells/ml	Stable disease, Progress of disease
patient 2	II	24/11/2010	2,7cells/ml	4/7/2011	3,7cells/ml	29/12/2011	3,5cells/ml	Progress of disease

Table 1. Variation of number of CTCs over time in two patients with bladder cancer.

## Results

The results showed that there is similar variation of the number of circulating tumor cells in the two patients with urinary bladder cancer pre and post chemotherapy.

## Conclusion

Bladder cancer is the fifth leading type of cancer worldwide. Epidemiological data show that bladder cancer affects more the male population. In the present study we assessed the clinical development of two patients with bladder cancer pre and post chemotherapy over time.

## References

1. <http://www.cancer.gov/cancertopics/types/bladder>
2. [http://www.medicinenet.com/bladder\\_cancer/article.htm](http://www.medicinenet.com/bladder_cancer/article.htm)
3. <http://cancerhelp.cancerresearchuk.org/type/bladder-cancer/>

