

()

//
//

*



T_3 T_2 T_1 T_4

$(P < 0.010)$

$(P > 0.05)$

T_2 T_1

% %

(cut-off)

(%) T_4 (%) T_3 (%) T_2 (%) T_1

%

% (T_3, T_4)

T_2, T_1



%

E-mail:

p2000torbati@yahoo.com

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()

DNA

()

()

AJCC/UICC

T₃

T₂

T₁

T₄

g

IBL

(NMP 22)

(BTA)

Kolmogorov - Smirnov Goodness of

()

Fit

Student's t-test

Kruskal

(TPA)

(T)

wallis

P < /

(Receiver Operating

characteristics) ROC

(cut off)

(P < /)

T4 T3

(T4,T3)

()

)

/ ± /

(

/ ± /

()

ROC
ROC

T4 T3 T2 T1

/

()

%

%

% T2

% T1

/ ± /

/ ± /

(P < /)

% T4

% T3

/ ± / T2

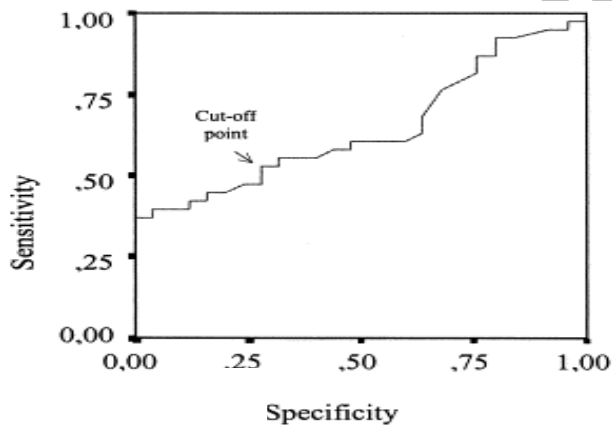
/ ± / T1

% (T3 + T4)

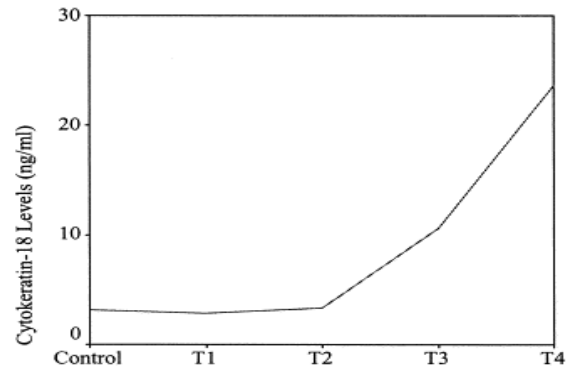
/ ± / T4

/ ± / T3

% (T1 + T2)



نمودار ۲ - تصویر ROC سطح سرمی سیتوکراتین ۱۸ و عملکرد آنالیتیک آن



نمودار ۱ - سطح سرمی سیتوکراتین ۱۸ در مراحل مختلف گسترش کارسینوم اوروتلیا ل و تعیین نقطه عطف

()

()

() Maulard

TPA

()

()

Filela .

TPA ()

() /

TPA

TPA

()

Pariente .

CYFRA 21-1

()

(I)

(II)

(.)

CYFRA 21-1

() Morita

CYFRA 21-1

()

IBL ()

TPA

M2

TPA .

(Tissue
 T_2, T_1 Polypeptide specific antigen) TPS
 TPS ()
 % %
 ()
 % T_1 % :
 T_4 % T_3 % T_2 TPS
 % (T_1+T_2) () Hijaz
 % $(T_3 + T_4)$
 DNA
 () Halim
 TPS
 () Baker
 Sanchez- %
 % () Carbayo
 TPS () Mady
 TPA % % %
 (T_4, T_3)

REFERENCES

1. Bittard H., Lamy B. and C. Billery. Clinical evaluation of cell deoxyribonucleic acid content measured by flow cytometry in bladder cancer. *J Urol* 1996; 155: 1887-91
2. Senga Y., Kimura G., Hattori T. and K. Yoahida . Clinical evaluation of soluble cytokeratin 19 fragments (CYFRA 21-1) in serum and urine of patients with bladder cancer. *Urology* 1996;48:703-10.
3. Harnden P., Eardley I., Joyce A.D. and Southgate J. Cytokeratin 20 as an objective marker of urothelial dysplasia. *Br J Urol* 1996; 78:870-75.

4. Droller M.J. Bladder cancer: State-of-the-art care. *CA Cancer J Clin* 1998;48: 269–84
5. Stampfer D.S., Capinuto G.A., Kodriguez-Villanueva J. et al., Evaluation of NMP22 in the detection of transitional cell carcinoma of the bladder. *J Urol* 1998;159: 394–98.
6. Sarosdy M.F., Vere White R.W., Soloway M.S. et al., Results of multicenter trial using the BTA test to monitor for and diagnose recurrent bladder cancer. *J Urol* 1995;154: 379–383.
7. Murray R.K. Cancer, oncogenes, and growth factors. In: Murray R.K., Granner D.K., Mayes P.A. and Rodwell V.W., Editors. *Harper's Biochemistry*. London: Appleton, Lange. 1993;P: 710–728.
8. Bennink R., Van Poppel H., Billen J. Serum tissue polypeptide antigen (TPA): Monoclonal or polyclonal radio-immunometric assay for the follow-up of bladder cancer. *Anticancer Res* 1999;19:2609–14.
9. Ridlander L., Zeigler E., Bergman T. Molecular characterization of a tissue-polypeptide-specific-antigen epitope and its relationship to human cytokeratin 18. *Eur J Biochem* 1996; 241:309–315.
10. Sudstrom B.E. and Stigbrand T.I., Cytokeratins and tissue polypeptide antigen. *Int J Biol Markers* 1994; 9: 102–108.
11. Weber K., Osborn M., Moll R., Wiklund Bo. and Luning B., Tissue polypeptide antigen (TPA) is related to the non-epidermal keratins 8, 18 and 19 typical of simple and non-squamous epithelia: re-evaluation of a human tumour marker. *EMBO J* 1984;3: 2707–14.
12. Maulard C., Toubert M.E., Chretien Y., Delanian S., Dufour B. and Housset M., Serum tissue polypeptide antigen (S-TPA) in bladder cancer as a tumour marker. *Cancer* 1994;73:394–98
13. Filella L., Menendez V., Molina R., Alcover J., Corretero P. and Ballesta A.M., TPA prognostic value in superficial bladder cancer. *Anticancer Res* 1996;16:2173–76.
14. Khanna O.P. and Wu B., Tissue polypeptide antigen (TPA) as a predictor for genitourinary cancers and their metastases. *Urology* 1987; 30:106–110.
15. Pariente J.L., Bordenave F., Jacob F. Analytical and prospective evaluation of urinary cytokeratin 19 fragment in bladder cancer. *J Urol* 1997;163:237-44.
16. Marettoya E. and Maretta M. Expression of cytokeratins in the urinary passages. *Gen Physiol Biophys* 1999;18:102–105
17. Fetissou F., Serres G. and Haillot O., Cytokeratins and transitional epithelium of the bladder. Particular distribution of cytokeratins. *Arch Anat Cytol Pathol* 1990;38: 159–162.
18. Tarle M., Frkovic-Grazio S., Kraljic I. and Kovacic K., A more objective staging of advanced prostate cancer. Routine recognition of malignant endocrine structures: The assessment of serum TPS, PSA, and NSE values. *Prostate* 1994;24:143–148.

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19. Inaba N., Fukazwa I., Okajima Y. et al., Tissue polypeptide specific antigen (TPS) as a tumor marker for gynecologic malignancies-a comparative study with tissue polypeptide antigen (TPA), cancer antigen 125 (CA 125) and squamous cell carcinoma-associated antigen (SCC). *Chiba Med J* 1993;69:35–42.
 20. Devine P.L., Yarker J.Y., Fong K.M. et al., Serum markers CASA, CEA, CYFRA 21-1, MSA, NSE, TPA and TPS in lung cancer. *Int J Oncol* 1994;4:1129–35.
 21. Hijazi A., Devonec M., Bouvier R. and Revillard J.P., Flow cytometry study of cytokeratin 18 expression according to tumor grade and deoxyribonucleic acid content in human bladder tumors. *J Urol* 1989;141: 522–26 .
 22. Sanchez-Carbayo M., Urrutia M., Silva J.M. Urinary tissue polypeptide-specific antigen for the diagnosis of bladder cancer. *Urology* 2000; 55:526-32.
 23. Halim A.B., el-Ahmady O., Hamza S., Aboul-Ela M. and Oehr P., Serum TPS versus TPA in Egyptian bladder cancer patients. *Int J Biol Markers* 1993;8;221–26.
 24. Baker W.C., Vere White R., Rossitto P.V., Min B.H. and Cardiff R.D. , Quantitative analysis of keratin 18 in the urine of patients with bladder cancer. *J Urol* 1988;140: 436–39.
 25. Mady E.A. ,Cytokeratins as serum markers in Egyptian bladder cancer.A comparison of CYFRA 21-1 , TPA and TPS. *Int J Biol Markers* 2001;16:130-135.

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