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PROGNOSTIC FACTORS IN PATIENTS WITH LUNG CANCER

D. Dimov, I. Mircheva

Clinic of Pulmology, Varna

The adequate therapeutic approach to patients with lung cancer requires precise evaluation of their condition and reliable prognosis of the future development of the disease. Our study aims at assessing some basic prognostic factors in patients with lung cancer.

A total of 366 patients with lung cancer were registered in the data-base of the Clinic of Pulmology and were followed up for a period of 3 years. Prognostic factors were assessed by univariate analysis (Cox-Mantel test) and multivariable analysis (Cox's proportional hazard regression model). Software programmes KMSURV (2) and COXSURV (3) were used in the study. The mean survival time of the patients, included in the study was of 14,3 ± 0.9 months and the meen survival was of 9,0 months. The results of the univariate and multivariate analises are shown on table 1 and table 2. Stage of disease, Karnofsky's performance status and pleural effusion prove to have independent prognostic significance. When discussing the results of our study we

Table 1

Variables	Patients	Dead	Survival (months) mean	median
Histology -				
squamous cell	154	122	15,2 ± 1,3	11,0
small cell	126	96	12,7 ± 1,2	8,0
adenocarcinoma	40	32	10,9 ± 1,9	7,0*
Stage-				
II	93	61	21,1 ± 1,9	16,0
III A	65	47	17,2 ± 2,5	9,0***
III B	98	77	11,2 ± 1,6	8,0
IV	110	97	7,6 ± 0,7	6,0***
Pleural effusion -				
no	308	233	15,1 ± 1,0	10,0
yes	58	49	9,3 ± 1,6	5,0**
Number of metastases				
0	256	185	16,8 ± 1,6	12,0
1	81	72	7,9 ± 0,8	7,0***
> 1	21	25	6,3 ± 1,3	7,0**
Type of metastases				
brain	16	14	5,1 ± 1,4	2,0
visceral	50	42	7,8 ± 1,0	6,0***
others	44	41	7,7 ± 1,0	7,0*
Sex				
males	330	258	13,5 ± 0,1	9,0
females	36	24	16,9 ± 2,8	8,0
Age				
> 60 years	185	141	15,3 ± 1,3	11,0
< 60 years	179	141	13,0 ± 1,2	8,0
Weight loss				
no	196	153	14,6 ± 1,2	9,0
yes	110	90	10,4 ± 1,2	7,0
Karnofsky's performance status 0 - 70	139	123	7,8 ± 0,8	6,0
80 - 100	167	120	17,8 ± 1,2	12,0***

Statistical significance of the difference between survival curves assessed by Cox-Mantel test as.

* - $p < 0,05$; ** - $p < 0,001$; *** - $p < 0,0001$

must underline the considerable prognostic significance of Karnofsky's performance status and pleural effusion. This fact is discussed by other authors as well and some of them even are ready to add the performance status to the criteria that form the TNM classification of lung cancer (1,4).

Table 2

Variables	Hazard ratio	p
Stage III A	1,319	0,17
Stage III B	1,478	0,06
Stage IV	2,435	0,0001
Performance status 0 - 70	0,247	0,0001
Pleural effusion	1,541	0,02

The univariate analysis of prognostic factors in lung cancer patients has identified stage of disease, pleural effusion, number and type of metastases and Karnofsky's performance status to be significant parameters, predicting the patients' survival.

The proportional hazard regression model of Cox has shown that stage of disease, performance status and pleural effusion have independent prognostic significance.

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