食道癌病人的營養狀態與存活分析及探討

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目的：

依105年最新出爐之十大死因「癌症」又再度蟬聯榜上之首。以性別觀察，男性第4與第5順位癌症死因為口腔癌與食道癌，女性則為乳癌與胃癌。評估食道癌症病人的人口特徵，包括：性別、居住地區、年齡、教育程度、營養狀態、身高、體重、腫瘤分期、腫瘤大小、局部淋巴侵犯程度、轉移與否、轉移位置、肝腎功能、血液紅血球、血色素、血小板、總淋巴球數、白蛋白、癌症復發時間各項目與存活期的相關性。
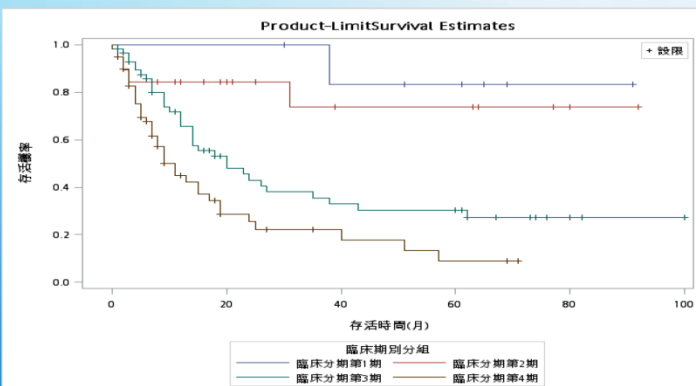
方法：

本研究利用回溯性研究法進行資料之收集及分析，調閱自2000-2015年某區域教學醫院癌症中心癌登資料，篩選符合條件者共143名病人，探討其營養指標與存活期的相關性。以電腦統計軟體SPSS® 22.0中文版進行分析。各項變數與食道癌營養狀況間的關係皆以單變數及多變數分析。
包含：描述性統計(Description analysis)、獨立樣本t檢定（Independent t -test）和卡方檢定（Chi-square test），並做存活迴歸分析(Cox regression)。其統計結果以$p < 0.05$表示具有統計上顯著差異。

表1:食道癌各變項分布

	Stage I	Stage II	Stage III	Stage IV	P-VALUE
Cases,N	7	19	58	59	
Gender -Male	7	16	55	56	0.302
-Female	0	3	3	3	
Age	53.71±12.39	59.63±12.44	57.16±13.74	57.66±11.54	0.748
BMI	20.04±3.61	21.00±3.77	21.68±4.78	21.51±4.21	0.788
BW	52.92±9.53	57.00±11.93	57.86±13.62	58.29±11.89	0.756
Hb	12.16±1.59	11.96±2.07	12.36±1.95	12.88±2.12	0.285
WBC	8.88±2.92	7.64±3.74	8.92±5.16	8.81±4.04	0.738
TLC	2193.85±655.10	1438.78±704.67	1707.00±691.21	1836.26±685.38	0.063
Platelet/Lymphocyte	19.64±21.78	31.12±79.55	18.55±18.73	16.34±20.42	0.440
Segment/Lymphocyte	3.09±2.57	8.64±21.03	4.59±3.95	4.10±4.44	0.224
Albumin	3.41±0.44	3.12±0.77	3.51±0.68	3.56±0.67	0.115
Total Protein	6.30±0.62	6.44±0.54	6.35±0.73	6.53±0.70	0.653
BUN	14.50±5.21	14.22±7.08	15.82±11.64	16.75±18.02	0.914
Creatinine	0.97±0.28	0.88±0.18	1.09±1.29	1.03±0.84	0.865
ALT/GPT	22.60±17.11	23.35±6.61	22.03±13.13	22.49±15.08	0.988
CRP	20.61±21.89	75.96±5.38	63.35±71.29	40.16±90.07	0.731

圖1:五年存活率分析

結果：

經統計結果分析：男性為134位，女性有9位，經診斷為食道癌時的臨床分期Stage I中男性有7位，女性0位，共7位；臨床分期Stage II中男性有16位，女性3位，共19位；臨床分期Stage III中男性有55位，女性3位，共58位；臨床分期Stage IV中男性有56位，女性3位，共59位。平均診斷年齡為57.52±12.56歲(表1)。並利用性別、年齡、體重、身體質量指數、白蛋白、生化檢驗數值等營養相關指標、癌症臨床期別與存活期加以分析，發現**性別**、**BMI**、**CRP**、**Albumin**等皆達顯著差異($p < 0.05$)（表2）。食道癌五年存活率分別為：臨床分期Stage I存活率為85.7%，臨床分期Stage II存活率為78.9%，臨床分期Stage III存活率為41.4%，臨床分期Stage IV存活率為33.9%，食道癌平均五年存活率為45.5%(圖1)。

結論：

藉由本研究分析與探討可瞭解食道癌病人發現癌症的臨床期別與存活有顯著相關，當發現癌症期別越後期(Stage III、Stage IV)，則死亡風險越高(>50%)。營養狀態越好者，其死亡風險越低。故需在治療期間若有較早期的營養介入下，病人的營養狀況越好，其預後越佳且存活期越長。

表2:探討影響食道癌五年存活率的各變項之顯著差異檢定

	Survive (N=65)		Death (N=78)		P-VALUE
	N	mean±SD	N	mean±SD	
Gender male	61		73		0.0081*
female	4		5		
Age<65	46		56		0.8926
Age≧65	19		22		
BW	61	57.38±13.64	72	57.89±11.49	0.815
BMI<18.5	20		11		0.017*
BMI≧18.5	41		61		
WBC	64	9.53±4.98	78	8.02±3.85	0.044*
RBC	63	4.06±0.69	78	4.05±0.67	0.907
Hemoglobin	64	12.34±2.52	78	12.66±1.84	0.357
Albumin	61	3.33±0.76	78	3.60±0.61	0.020*
Total Protein	41	6.28±0.75	62	6.53±0.64	0.067
BUN	61	17.25±12.05	77	14.89±15.29	0.328
Creatinine	63	1.06±1.24	77	1.01±0.72	0.786
Ca	50	9.22±1.12	65	9.34±0.85	0.517
CRP	14	66.65±74.48	6	13.54±23.50	0.028*
TLC	64	1778.17±742.88	76	1717.10±666.06	0.609
Platelet/Lymphocyte	64	25.41±47.57	76	14.32±14.62	0.077
Segment/Lymphocyte	63	6.22±12.38	76	3.77±2.81	0.128
Cancer stage					
Stage I:II:III:IV	6:15:24:20		1:4:34:39		0.0001*

心臟衰竭病人於營養衛教介入後之成效分析

Analysis of the Effect of Heart Failure Patients on Nutritional Education

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Purpose：

The prevalence of heart failure in Taiwan is about 5.5%, about 50% of patients dying 4 years after diagnosis. With the medical progress of cardiovascular diseases, advanced drugs and treatment combined with integrated multi-faceted care methods can provide comprehensive care for patients with heart failure.

Methods：

Select a regional teaching hospital 74 patients with heart failure (EF <40%), Dietitians educated patients to change the eating habits (ex: low salt diet and restricted water). Dietitians using nutrition assessment, dietary behavior survey, biochemical data and body composition data analysis.

The statistical software SPSS® 22.0 Chinese version was analyzed. The relationship between various variables and nutritional status of heart failure was analyzed by univariate and multivariate. Including: Description analysis, Independent t-test, and Chi-square test. Statistical results are statistically significant at p<0.05.

Results：

In 74 cases, 44 were men (59.5%) and 30 were women (40.5%), with an average age of 60.27 ± 13.92 years. The average duration of hospital stay was 7.81 ± 5.87 days. There were edema cases during the hospitalization period. Twenty-six (35.1%) of them still had edema after intervention by the medical team. The weight before hospitalization was 66.7 ± 18.2 kg, and was 65.9 ± 17.1 kg after discharge, with a weight loss of about 1-2 kg (p <0.05). Albumin before hospitalization were 3.81 ± 0.56 g / dL and albumin were 4.27 ± 0.44 g / dL for 6 months after discharge from the hospital. Skeletal muscle weight during hospitalization was 25.95 ± 6.66 kg, 25.49 ± 6.12 kg after discharge, Patients due to asthma lead to reduced food intake, Muscle volume decreased significantly. Three months after nutrition intervention, skeletal muscle mass increased (p <0.05).

Conclusion：

Nutritional health care interventions after eating habits and restricted-water control, heart failure patients can get a comprehensive care and improve the quality of life.

Table 1 Biochemical and blood values during hospitalization, discharge for 3 months, and discharge for 6 months

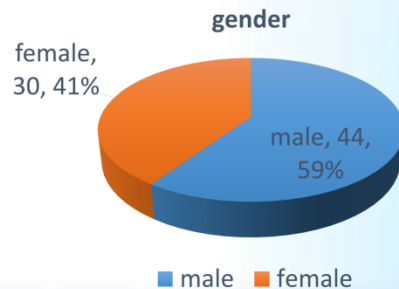|	hospitalization	Discharged for 3 months	Discharged for 6 months
age	60.27±13.92		
BUN	24.66±11.28	24.06±9.73	22.89±13.05
Cr	1.32±0.83	1.26±0.94	1.28±1.04
TC	173.00±52.52	154.24±67.49	228.91±314.02
TG	138.12±106.32	160.78±61.12	179.09±143.89
UA	8.14±2.76	6.60±1.27	7.30±2.29
WBC	9.06±3.59	9.92±4.43	8.26±3.10
Hb	13.08±2.35	13.44±2.21	13.37±2.54
Alb	3.81±0.56	4.37±0.40	4.27±0.44
TLC	2148.126	1928.448	2055.914

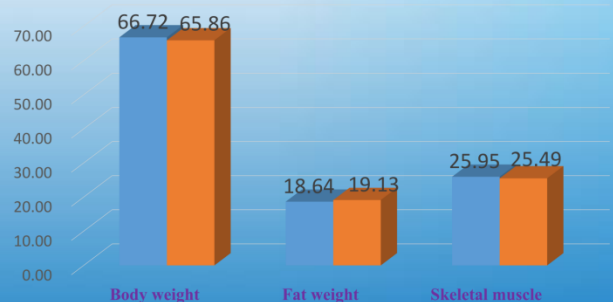**figure 1** There are a total of 44 males and 30 females with heart failure

figure 2 There are a total of 44 males and 30 females with heart failure