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## INTRODUCTION

Evidence show associations between cancer and type 2 diabetes mellitus (DM2). These diseases share some common pathophysiological mechanisms. Aim: To study in a population of older adults whether the presence of DM2 affects the epidemiological parameters of cancer.

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## METHOD

Retrospective observational study (2006-2017), 4,574 medical record of San Ricardo Pampuri Center (Córdoba, Argentina) were analyzed (patients ≥65 years). Cancer patients were grouped: with DM2 and without DM2. Poblational parameters were calculated and compared. Data were analyzed using ANOVA or chi-square test, p ≤ 0.05. Confidentiality and anonymity were respected.

## RESULTS

❖ Population data: 56% women/44% men. Average age: 70,1. 42% patients were obese and 39.8% with DM2. 390 patients developing cancer.

Cancer prevalence=8.5%, mortality=27.5 %, lethality=32%. Average survival: 2544.44 days.

Sex or DM2 not modificate cancer prevalences, but it were higher in obese patients (58 vs 42%).

❖ Most frequent tumors:

-Female: breast (0.44) and colon (0.10)

-Male: prostate (0.36) and colon (0.17)

❖ Comparisons between groups with and without DM2:

• Prevalence (%):

*Higher in the group DM2:* Men: pancreas (1.31 vs 0.44), kidney (1.31 vs 0.44) and non-Hodgkin lymphoma (0.87 vs 0.44). Women: breast (11.15 vs 8.31), pancreas (1.75 vs 0) and endometrium (1.53 vs 0.87).

*Higher in the group without DM2:* Men: prostate (7 vs 4.37), colon (3.28 vs 2.84) and bladder (1.97 vs 0.87). Women: colon (3.06 vs 1.31), thyroid (1.09 vs 0.44) and melanoma (1.09 vs 0.22).

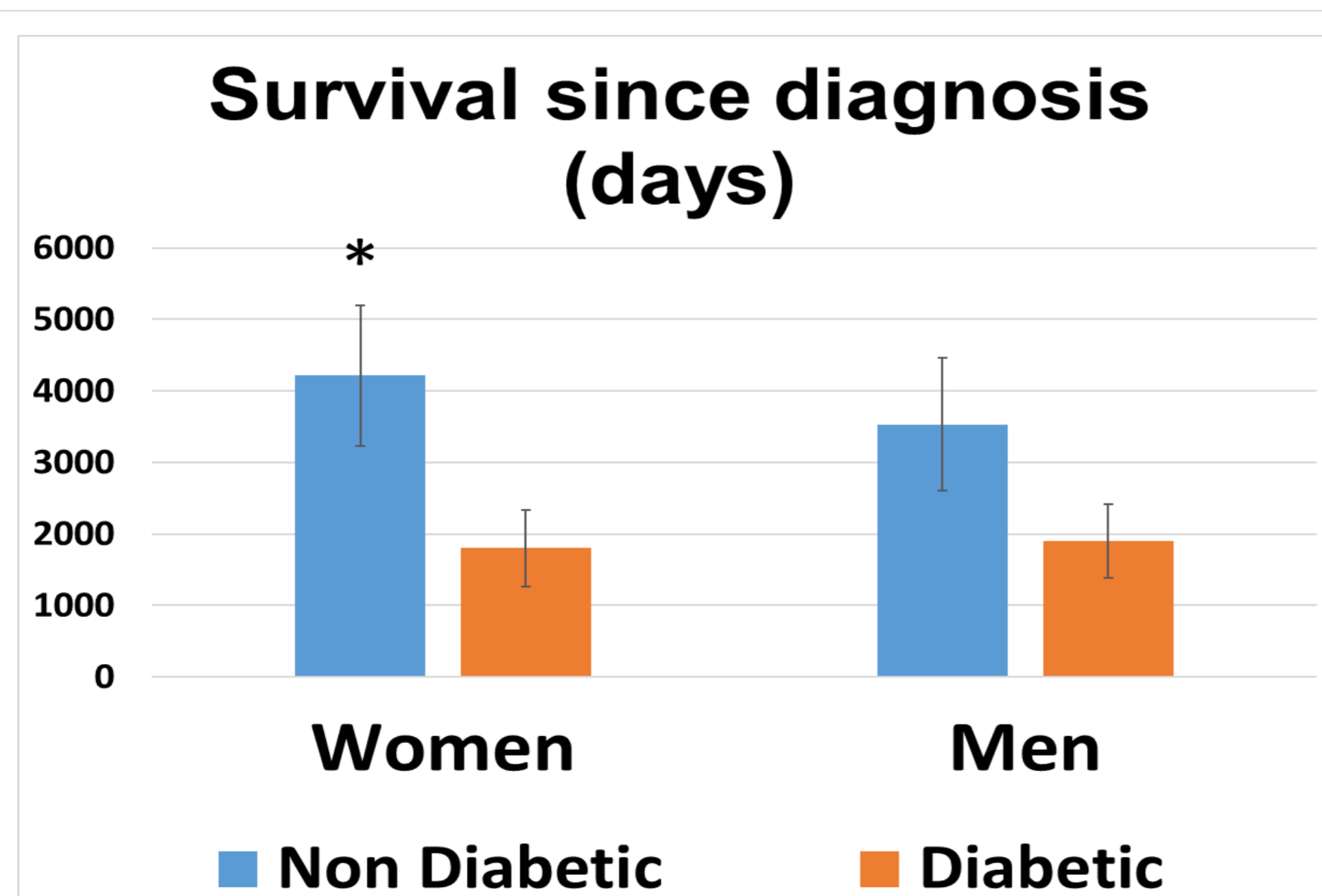
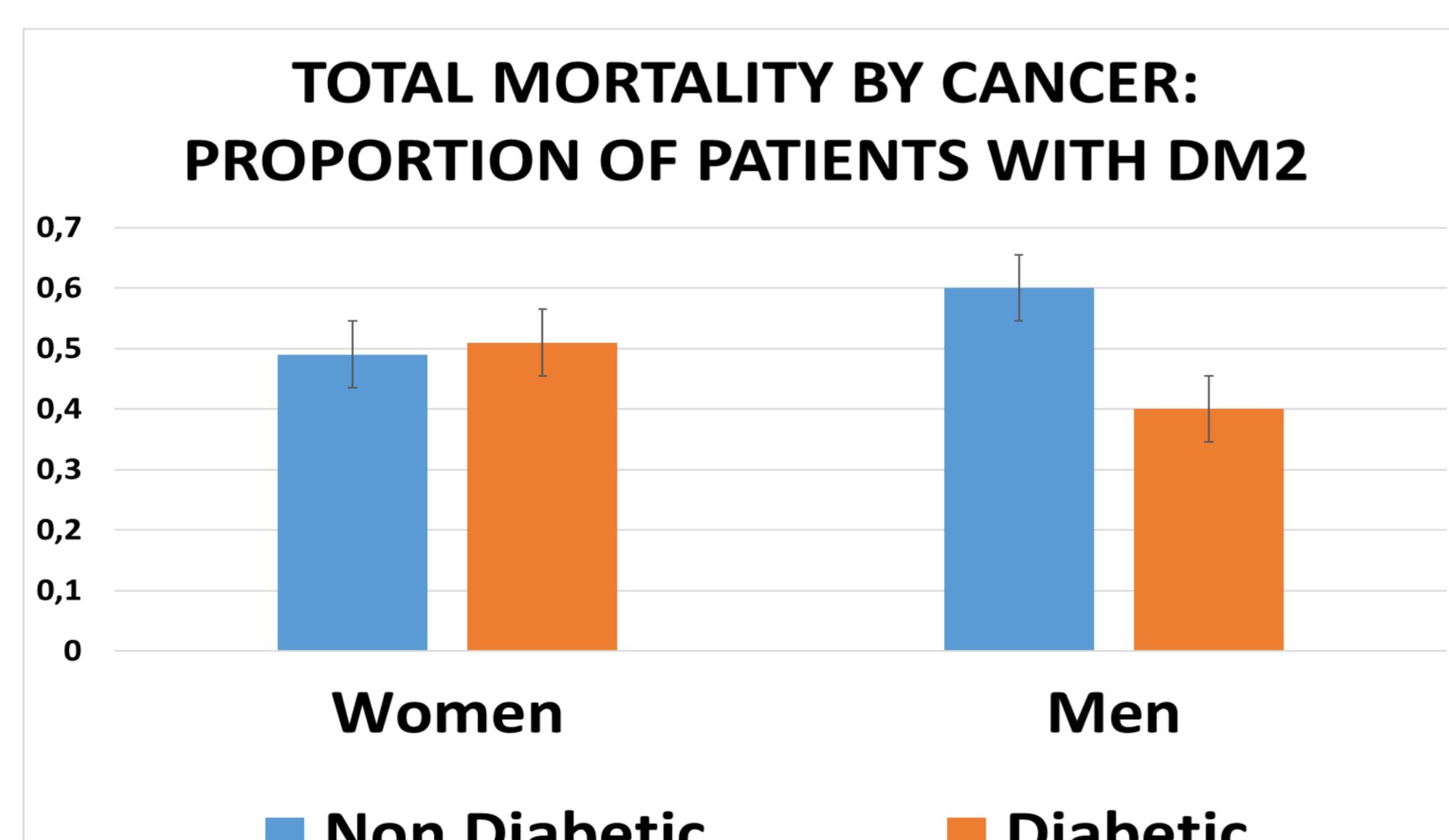
• Age at diagnosis (years): colon (68.91 vs 75.87) and prostate (71.78 vs 77.74) cancer were found at earlier ages in men with DM2.

• Mortality: Women: the values were similar in both groups (RR:1.01; OR:1.02). Men: mortality was lower for DM2 (RR:0.74; OR:0.57).

• Tumors with highest mortality in DM2 patients were: breast>colon>prostate>pancreas.

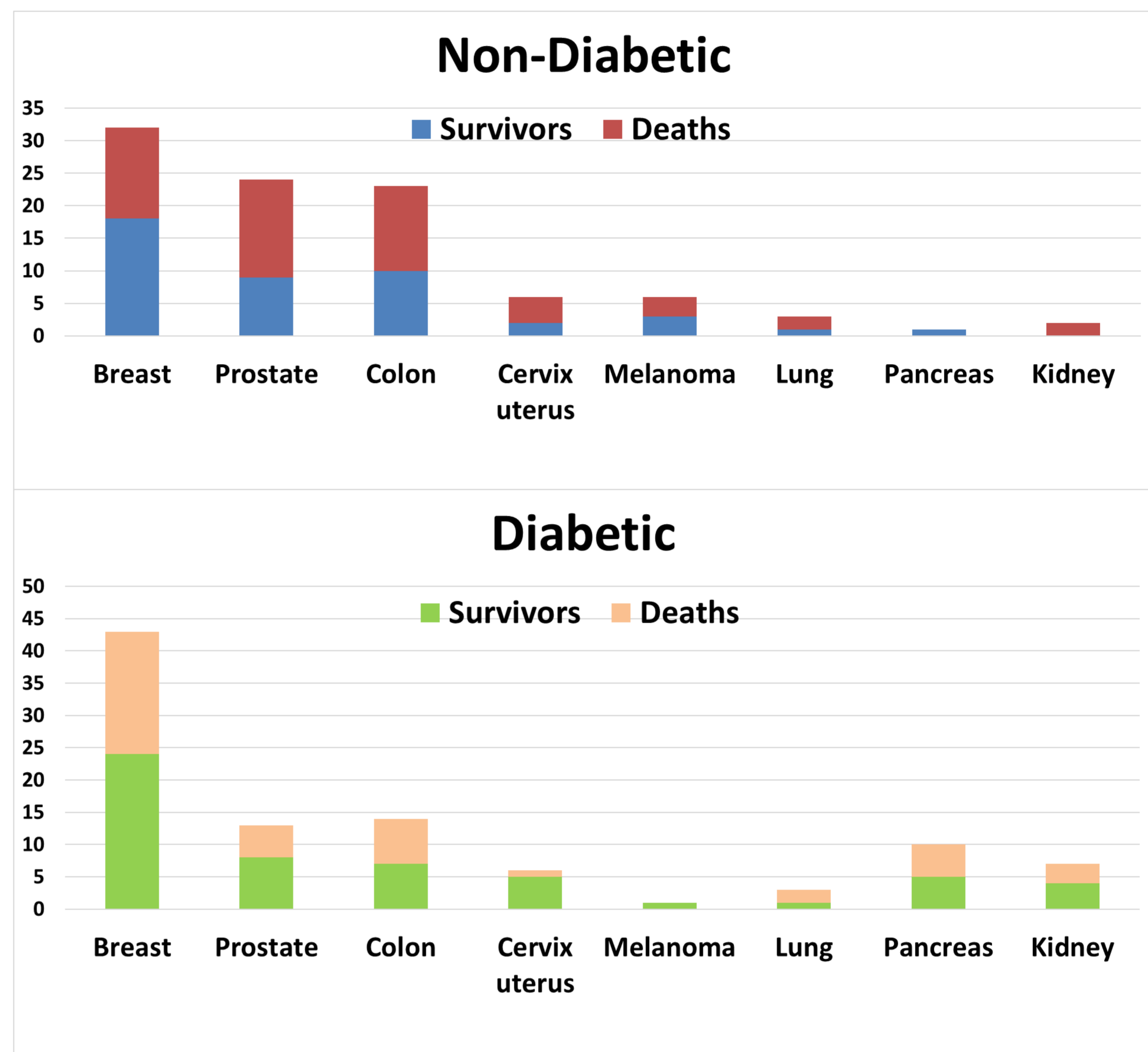
• Lethality (%): higher in DM2 patients for gastric cancer (100 vs 50), while esophagus, colon, kidney and prostate were higher in the group without DM2.

• Survival (days): women without DM2 have higher survival like those with DM2 (4213.5 vs 1802.73).



## CONCLUSION

DM2 and cancer comorbidity significantly affects the parameters studied, mainly in women, increasing the prevalence of breast cancer and decreasing survival.



Tumor	WOMEN		MEN		
	Relative Frecuency		Relative Frecuency		
	NON-DIABETIC	DIABETIC	NON-DIABETIC	DIABETIC	
Breast	0,41	0,50	Prostate	0,39	0,29
Colon	0,14	0,07	Colon	0,17	0,17
Uterus	0,11	0,13	Bladder	0,11	0,04
Thyroid	0,06	0,02	Testicle	0,04	0,00
Ovary	0,06	0,00	Kidney	0,03	0,09
Melanoma	0,05	0,01	Pancreas	0,02	0,09
Bladder	0,04	0,01	Hodgkin	0,02	0,05
Stomach	0,01	0,04	Lung	0,02	0,04
Pancreas	0,00	0,07	Myeloma	0,00	0,04
Kidney	0,00	0,05	Stomach	0,00	0,04

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