

Clinicopathologic features of pancreatic cancer treated at Stony Brook Cancer Center

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BACKGROUND

Pancreatic cancer is the fourth leading cause of cancer-related death in the United States and has one of the highest incidence-to-mortality ratios of any disease. Most patients are diagnosed at advanced stages that preclude surgical resection, which is the only potentially curative intervention, and have dismal long-term outcome. Nationally, the 5-year overall survival for all patients with pancreatic cancer is less than 5%. It is unclear whether patients diagnosed and treated here at Stony Brook University Hospital have similar poor outcome.

METHODS

We built a comprehensive database of pancreatic cancer patients diagnosed and/or treated here at SBUMC between 2008 and 2013. Information regarding demographics, clinical stages and pathological grade at diagnosis, treatment history and duration of survival has been systemically collected. We performed survival analysis based on different pathological grades and clinical stages. In particular, we analyzed the impact of surgery on the survival of stage II patients.

RESULTS

A total of 363 patients with pancreatic adenocarcinoma have been identified through cancer registry and Cerner electronic medical records. Malignancies of the pancreas other than adenocarcinoma, e.g., pancreatic neuroendocrine tumor (PNET), have been excluded for further analysis.

As shown on the Table, the majority of patients were Caucasians and most of them were elderly (≥ 65 yr). Pancreatic cancer affects both sex equally and tends to be diagnosed at an advanced stage.

Table. Demographic of study population

N	363
Sex	
Male	185 (51%)
Female	178 (49%)
Age	
<65 yr	130 (36%)
≥ 65 yr	233 (64%)
Race	
Caucasian	335
African American	16
Hispanic	2
Asian	2
Others	8
Clinical stage	
0	10
I	36
II	109
III	37
IV	118
Unknown	53

As expected, the survival rate of pancreatic cancer decreases with more advanced stage. As shown on Figure 1, the median survival of patients with stage I was 20.7 months; while for patient with stage 4 disease, it was only 4 months.

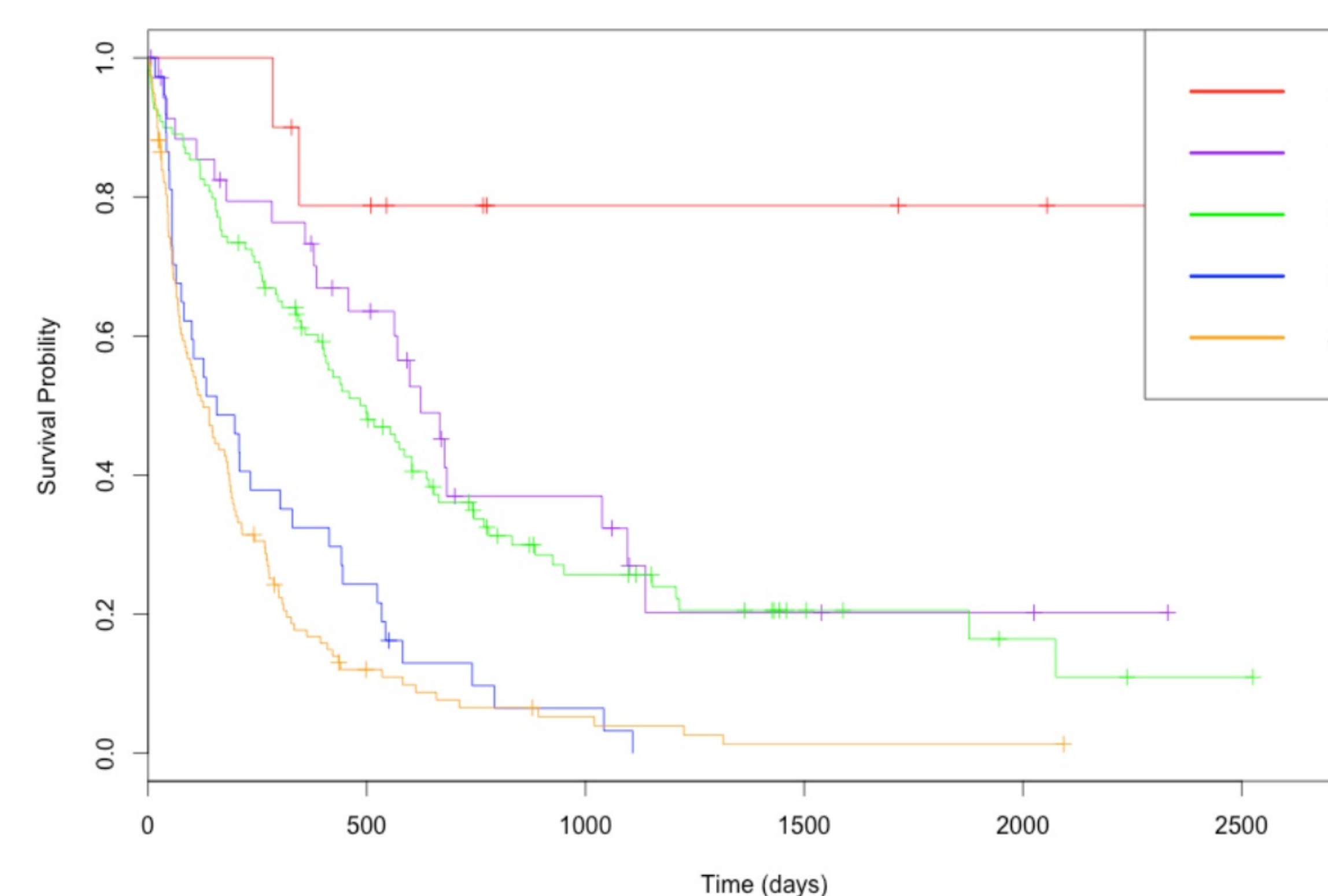


Figure 1. Overall survival of pancreatic cancer by clinical stage

Furthermore, we analyzed the impact of surgery of the survival of patients. As shown on Figure 2, patients who underwent surgical resection in general had better outcome than patient who did not. Both patients with stage I and II benefited from surgical resection.

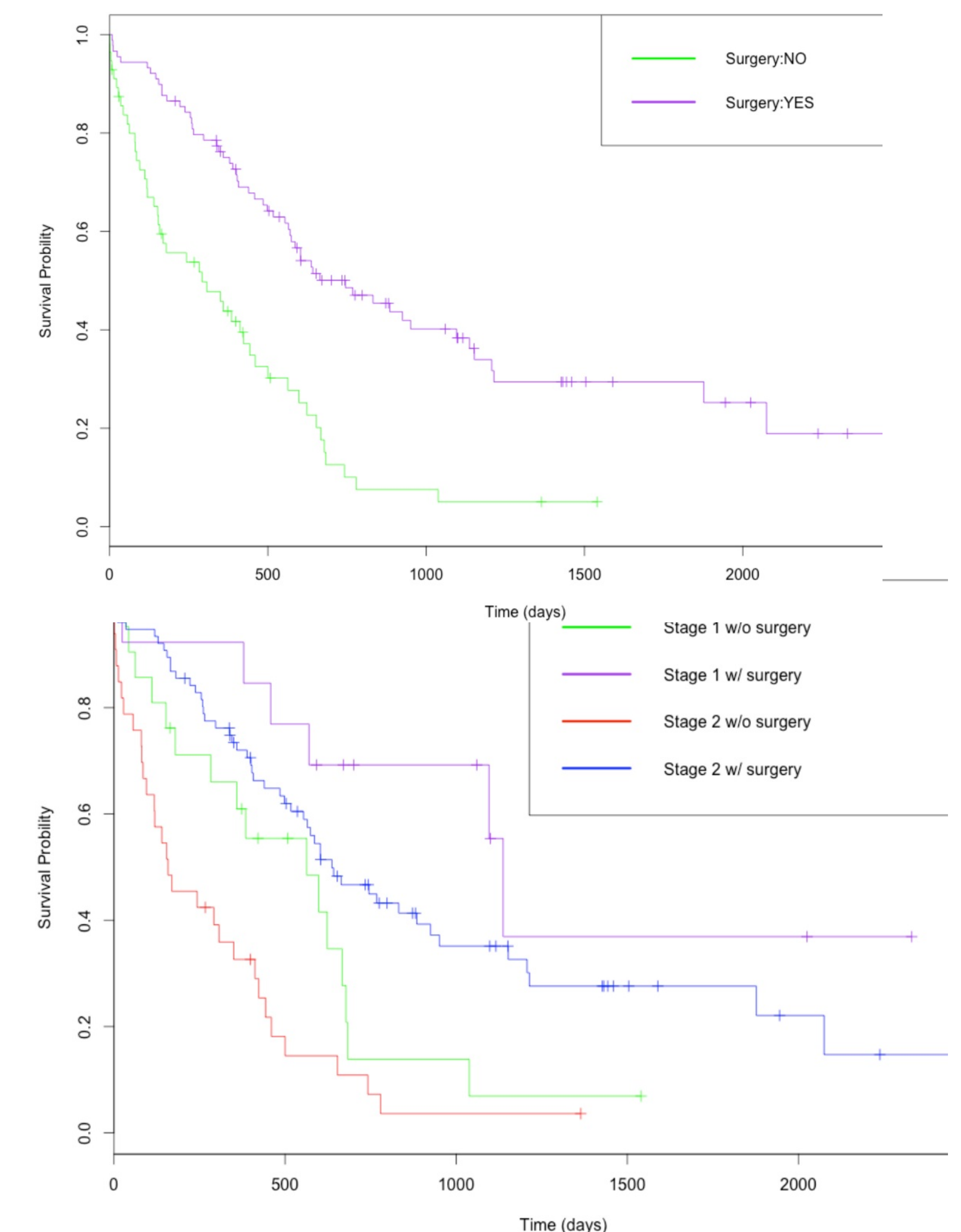


Figure 2. Impact of surgery on the overall survival.

CONCLUSION

Pancreatic adenocarcinoma remains a very lethal disease in Stony Brook Cancer center and pancreatic cancer database would be a good tool in improving further cancer care.