

Survival among Patients with Pancreatic Adenocarcinoma, California, 1994-2000

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California Cancer Registry

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Objective

- Survival after diagnosis with pancreatic cancer is notably short. However there have been few population-based analyses of factors that influence survival.
- The purpose of the current study was to evaluate survival of patients diagnosed in California with adenocarcinoma of the pancreas by demographic and tumor factors.

Methods

- Through the California Cancer Registry we identified all California residents diagnosed with invasive pancreatic adenocarcinoma between January 1, 1994, and December 31, 2000.
- Demographic, tumor and treatment information was extracted from the CCR, and socioeconomic status (SES) was assigned based on census tract of residence.

Results

- A total of 10,612 eligible patients were identified.
- 63% were age 65 or older
- 73% white, 8% black, 11% Hispanic, 8% API
- Over half were diagnosed with metastatic (SEER SS=remote) disease

Results

- 15.8% of patients received resection
- % with resection increased from 14.7% in 1994 to 18.7% in 2000.
- Patients were more likely to have resection if they were younger, had smaller tumors, well-differentiated tumors, tumor in the head of the pancreas, and higher SES.
- Blacks and low SES patients were somewhat less likely to have surgery.

Non-resected patients

- Median survival was 3 months for patients with no surgery
- Among those with no surgery, longer median survival was observed for patients with localized disease, well-differentiated tumors and negative lymph nodes.
- Median survival increased slightly with each quintile of SES (p for trend < 0.001)

Results

- Median survival was 13 months for those with surgery.
- Metastatic disease at diagnosis, poorly-differentiated tumors, positive lymph nodes and lack of adjuvant therapy were associated with increased risk of death among patients with surgery.

Results

- Survival increased with each quintile of SES:
 - 1 11.3 months
 - 2 11.8 months
 - 3 15.1 months
 - 4 13.8 months
 - 5 15.0 months
- p for trend < 0.002

Hazard ratios for resected patients

- Age ≥ 65 vs. < 65 1.16 (1.04-1.29)
- NH Black vs. NH White 1.02 (0.80-1.21)
- Remote stage vs. local 2.00 (1.56-2.57)
- Poorly diff. vs. well-diff 2.00 (1.67-2.41)
- No adjuvant therapy 1.52 (1.36-1.70)
- Lower SES vs. high 1.10 (0.99-1.23)

Limitations

- Completeness of adjuvant treatment information in the CCR
- Completeness of follow-up
- No pathologic review

Conclusions

- This study is the largest population-based study to date to explore survival from pancreatic cancer among all age groups in a racially diverse population.
- Median survival was shorter than that reported from other series.

Conclusions

- Race/ethnicity did not have a significant effect on survival, however patients residing in poor neighborhoods were less likely to receive surgery and somewhat less likely to survive this disease.