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### P-9 Gallbladder cancer in the United States: Identifying factors associated with failure to treat

M. White<sup>1</sup>, S. Prathibha<sup>1</sup>, A. Gupta<sup>2</sup>, A. Prakash<sup>2</sup>, J. Hui<sup>1</sup>, T. Tuttle<sup>1</sup>, J. Ankeny<sup>1</sup>, C. LaRocca<sup>1</sup>, S. Marmor<sup>1</sup>, E. Jensen<sup>1</sup>

<sup>1</sup>University of Minnesota, Department of Surgery, Minneapolis, United States; <sup>2</sup>University of Minnesota, Department of Medicine, Minneapolis, United States

**Background:** Adjuvant chemotherapy (AC) should be considered for all patients with surgically resected T1b-T3, high-risk (node-positive) gallbladder cancer (GBC). However, in the United States, few patients receive AC. We sought to identify physician- and patient-specific factors associated with and reasons for low AC use for high-risk T1b-T3 GBC.

**Methods:** We performed a retrospective review of the National Cancer Database from 2004-2017, identifying patients with T1b-T3 GBC who underwent surgical resection. Exclusion criteria were non-surgical management; death within 60 days of definitive surgery; T1a, T4, or metastatic disease; and receipt of neoadjuvant therapy. To identify a cohort in which all patients should be candidates for AC, our analysis focused on patients with T1b-T3, node-positive disease. Receipt or recommendation of AC within 90 days of definitive surgical procedure was described; for patients for whom AC was not recommended or received, the reason was noted. Trends in AC recommendation rate were evaluated using the Cochran-Armitage test. Five-year overall survival (OS) by lymph node status and AC receipt were described with Kaplan-Meier and Cox proportional hazards modeling.

**Results:** 2,765 patients with T1b-T3 GBC met study criteria. Of these, 30% (n=832) had positive lymph nodes and 27% (n=755) had positive resection margins. Most were older than 65 years of age (61%), non-Hispanic White (65%), female (70%), and had a Charlson Comorbidity Index of 0 (70%). Of those with positive lymph nodes, 53% (n=436) were recommended and received AC, 31% (n=254) were not recommended AC because "chemotherapy is not indicated for this condition," 4% (n=32) were not recommended AC due to patient risk factors, and 14% (n=110) did not receive recommended AC due to patient death, patient refusal, or unknown reason. Rate of AC recommendation for patients with node-positive disease significantly increased throughout the study period, from 58% in 2004 to 71% in 2017 (p<0.05). Odds of AC recommendation for node-positive patients were increased in the more recent time frame (2012-2017 vs 2004-2011; OR 1.79, CI 1.33-2.41) and for younger patients (ages 18-64 vs 55-64; OR 1.83, CI 1.3-2.58), but decreased with age >65 (vs 55-64; OR 0.46, CI 0.32-0.68). While the 5-year OS of node-positive patients who did not receive CT was 17% throughout the study period, the 5-year OS of node-positive patients who received CT was prolonged in the more recent time period: from 20% in 2004-2011 to 28% in 2012-2017 (p=0.06).

**Conclusions:** For patients with node-positive T1b-T3 GBC, AC recommendation rate increased over time, and was associated with prolonged OS. However, low AC use was most frequently related to the physician perception that "chemotherapy is not indicated." In contrast, poor performance status and patient refusal were only rarely responsible for low AC use. Our data suggest that physician-dependent factors are the predominant driver of failure to treat patients with high-risk GBC - namely, that physicians believe AC is not indicated for these patients. Improving physician education is likely key to improving AC rates and survival outcomes for patients with node-positive T1b-T3 GBC.

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### P-10 Standardization of a neoadjuvant therapy (NAT) pathway for pancreatic cancer across a geographically large and diverse healthcare system improves patient care and successful completion of NAT

R. Parakrama<sup>1</sup>, B. Sidiqi<sup>2</sup>, L. Demyan<sup>3</sup>, S. Pasha<sup>3</sup>, D. Pinto<sup>3</sup>, T. Zavadsky<sup>3</sup>, X. Zou<sup>1</sup>, S. Patruni<sup>4</sup>, A. Kapusta<sup>5</sup>, O. Standing<sup>3</sup>, M. Weiss<sup>3</sup>, J. Herman<sup>2</sup>, D. King<sup>4</sup>

<sup>1</sup>Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, New York, United States; <sup>2</sup>Division of Radiation Medicine, Northwell Health Cancer Institute, New Hyde Park, United States; <sup>3</sup>Division of Surgery, Northwell Health Cancer Institute, New Hyde Park, United States; <sup>4</sup>Division of Medical Oncology/Hematology, Northwell Health Cancer Institute, New Hyde Park, United States; <sup>5</sup>Northwell Health Cancer Institute, New Hyde Park, United States

**Background:** Optimal management of patients with potentially resectable pancreatic ductal adenocarcinoma (PDAC) is controversial and variation exists within/across academic and healthcare systems. Herein we describe the initial results of a

neoadjuvant therapy (NAT) pathway across one of New York's largest, most diverse health care systems.

**Methods:** The NAT pathway was established at Northwell Health in June 2019, consisting of an initial, single-day pancreas multi-disciplinary clinic (PMDC) visit, followed by NAT, interval scans and PMDC re-reviews at two and four months, prior to consideration of radiation and of surgical resection. We conducted an IRB-approved retrospective analysis of patients enrolled to this pathway. Primary endpoints included completion of NAT pathway and overall survival (OS). Kaplan-Meier analysis was used to estimate OS.

**Results:** The cohort consisted of 55 patients: 44% men, mean age 69.7 years, and 48% non-White. Surgical stage at diagnosis was locally advanced (LAPC; 49%), borderline resectable (BRPC; 35%) and resectable (RPC; 16%). NAT consisted of gemcitabine/nab-paclitaxel (GnP, 41%; 147 total cycles), FOLFIRINOX (36%; 167 total cycles), and a combination of both regimens (23%). Eighteen (33%) received radiotherapy (94%, SBRT) and 72% received ≥50 Gy. Average duration of NAT pathway (from biopsy to surgery) was 5.9 mo (IQR 4.7-7.6 mo); average time from biopsy to C1 of NAT was 25 days (IQR 18-39 days), from C1 to post NAT completion imaging was 3.9 mo (IQR 3.5-4.8 mo) and from RT to surgery was 36.0 days (IQR 30.5-43.8 days). Of 55 patients who began the pathway, 24 (44%; 6% RPC, 53% BRPC, 41% LAPC) completed the pathway and underwent surgical exploration; 22 did not complete the pathway and 9 are currently undergoing NAT. Reasons for not completing NAT included metastasis (24%), transfer of care (12%), local progression (5.5%), and death (3.6%). Out of 24 patients who were surgically explored, 71% underwent successful resection (53% R0, 18% R1 < 1mm and 30% R1) compared to prior institutional resection rate in NAT patients of 17% (p=0.015). There were 11 deaths (20%) and median OS was reached at 17.7 mo (95% CI 7.9, 27.6); 16.3 mo 95% CI 7.2, 25.4) and 26.1 mo (95% CI 3.2, 49) for GnP and FOLFIRINOX, respectively. Patients enrolled in the NAT pathway had a higher rate of germline mutation testing (52% vs 30%, p=0.002). The percentage of patients that remained within the Northwell Health system for their post-NAT was higher among patients in the pathway, compared to prior (87% versus 44%).

**Conclusions:** Implementation of a standardized NAT approach at a large diverse healthcare system increased the percentage of PDAC patients who underwent surgical resection and improved patient retention rate. Our data lay the groundwork for further studies that will provide long term outcomes of NAT in these patients.

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### P-11 Venous thromboembolism in colorectal cancer patients with BRAF mutation

L. Ortega Morán<sup>1</sup>, D. Pesántez<sup>2</sup>, E. Brozos Vázquez<sup>3</sup>, D. Fernández Garay<sup>4</sup>, M. Lobo de Mena<sup>5</sup>, P. Ribera Fernández<sup>6</sup>, M. Sánchez Cánovas<sup>7</sup>, M. Salgado Fernandez<sup>8</sup>, E. García Pérez<sup>9</sup>, E. Iriarte Moncho<sup>10</sup>, B. Morón García<sup>1</sup>, C. Font<sup>2</sup>, E. Gallardo<sup>6</sup>, J. Pérez Altozano<sup>10</sup>, A. Muñoz Martín<sup>1</sup>

<sup>1</sup>Hospital General Universitario Gregorio Marañón, Universidad Complutense, Madrid, Spain; <sup>2</sup>Hospital Clínic Barcelona, Barcelona, Spain; <sup>3</sup>Medical Oncology Department & Oncomet Group, University Clinical Hospital of Santiago de Compostela, Health Research Institute of Santiago (IDIS), CIBERONC, Santiago de Compostela, Spain; <sup>4</sup>Complejo Hospitalario de Jaén, Jaén, Spain; <sup>5</sup>Consorcio Hospital General Universitario de Valencia, Valencia, Spain; <sup>6</sup>Parc Taulí Hospital Universitari, Sabadell, Spain; <sup>7</sup>Hospital General Universitario Morales Meseguer, Murcia, Spain; <sup>8</sup>Complejo Hospitalario Universitario de Ourense, Ourense, Spain; <sup>9</sup>SCIAS-Hospital de Barcelona, Barcelona, Spain; <sup>10</sup>Hospital Virgen de los Lirios, Alcoy, Spain

**Background:** Venous thromboembolism (VTE) is a frequent complication in colorectal cancer (CRC) patients. In these patients, some molecular biomarkers, such as KRAS mutation, have been associated with an increased risk of thrombosis. However, little is known about the characteristics of VTE associated with less prevalent molecular biomarkers. The aim of this analysis is to describe the characteristics of VTE of a cohort of ambulatory CRC patients harboring BRAF mutation.

**Methods:** We performed a retrospective review of consecutive patients with BRAF-mutated CRC attended in the Medical Oncology Department of 10 hospitals from the network of the Cancer & Thrombosis Section of the Spanish Society of Medical Oncology (SEOM). Between January 2014 and June 2018, 165 patients were identified and included in the analysis.

**Results:** Mean age was 63.47 years (standard deviation [SD] 11.50 years) and 46.7% (n=77) were men. With a median follow-up of 15 months (interquartile range [IQR] 9-25), forty patients (24.2%) developed a VTE (32.4% pulmonary embolism, 24.3% lower-extremity deep-vein thrombosis [DVT], 2.7% upper-extremity DVT, 16.2% visceral thrombosis, 18.9% catheter related-thrombosis, 5.4% others). Most patients had metastatic disease (90.0%) and was receiving systemic therapy (73.7%). Median time from CRC diagnosis to VTE was 5.06 months (IQR 2.85-10.81). 50.0% of events were diagnosed incidentally and 75.0% in the ambulatory setting. Most patients (87.5%) received anticoagulant treatment (low-molecular-weight heparins [LMWH] 33 patients, direct oral anticoagulants [DOACs] 1 patient, others 1 patient), 35.9% for more than 6 months. 6 patients (15.4%) experienced VTE recurrence and 7 patients