Effects of oncologic rehabilitation during adjuvant endocrine therapy in overweight or obese patients with breast cancer

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advancing age (13.2% in old patients vs. 40.9% in oldest patients; P<0.001). On multivariable logistic regression, CVD was associated with lower odds of receiving appropriate chemotherapy (odds ratio [OR], 0.54; 95% confidence interval [CI], 0.42-0.68; $P < .0001$) and radiotherapy (OR, 0.67; 95% CI, 0.57-0.78; $P < .0001$), but not surgery (OR, 0.89; 95% CI, 0.76-1.04; $P = 0.155$). The 5-year OS was lower in patients with baseline CVD as compared to those without (77.9% vs 49.8%, $P < 0.001$). Upon adjusting for stage and treatment, CVD continued to correlate with worse survival (hazard ratio, 1.58; 95% CI, 1.46-1.71; $P < .0001$). The 5-year OS of the old, older, and oldest patients were 84.3%, 67.0% and 35.4%, respectively.

Table: 1811MO

	Old 65-74 years	Older 75-84 years	Oldest ≥ 85 years
Surgery Odds ratio (OR) 95% Confidence interval (CI) P-value	1.09 0.81-1.47 0.563	0.82 0.64-1.07 0.141	0.88 0.66-1.18 0.412
Chemotherapy OR 95% CI P-value	0.53 0.40-0.70 **<0.001**	0.52 0.31-0.89 **0.019**	0.40 0.05-3.08 0.381
Radiotherapy OR 95% CI P-value	0.69 0.55-0.89 **0.004**	0.63 0.51-0.79 **<0.001**	0.84 0.54-1.31 0.446

Conclusions: Older patients with breast cancer and pre-existing CVD are less likely to receive chemotherapy and radiotherapy. The OS of patients with baseline CVD was worse even among those who received treatment. Early cardio-oncology involvement in advanced age patients should be an integral part of cancer management to improve their outcomes.

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1812MO Effects of oncologic rehabilitation during adjuvant endocrine therapy in overweight or obese patients with breast cancer

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Background: Treatment with adjuvant endocrine therapy (ET) in patients with breast cancer (BC) increases the risk of becoming less physically active and weight gain. A high body mass index (BMI) and physical inactivity are both independently associated with a higher risk of cancer-related side-effects and mortality. Effects of oncologic rehabilitation on physical activity (PA) in this specific patient population is unknown. This study investigated whether oncologic rehabilitation increased PA in patients receiving adjuvant ET for BC.

Methods: Eligible patients for this multicenter, prospective clinical trial were female, aged 18-75, receiving adjuvant ET for BC, and with a BMI $\geq$ 25 (NCT02424292). All patients attended a 12-week moderate-intensity aerobic- and resistance exercise program. Moderate to vigorous PA (MVPA) was measured by an accelerometer at baseline (T0), after 12 and 26 weeks (T1 and T2). Primary endpoint was change in proportion of patients with weekly $\geq$ 150 minutes of MVPA (national guideline recommendations), at T1 compared to T0. Secondary endpoints were metabolic syndrome (MetS), body composition, health-related quality of life (HRQoL) and breast cancer-specific functioning and symptoms (EORTC QLQ-C30 and QLQ-BR23), self-reported PA (PASE), self-efficacy (ALCOS), exercise motivation (PACE) and overall satisfaction with life.

Results: In total, 141 patients with a median age of 61 yrs [54-66] and mean BMI of 31.3 $\pm$ 4.4 participated. Proportion of patients with weekly $\geq$ 150 minutes of MVPA increased from 38.6% at T0, to 48.7% at T1 and 56.3% at T2 [$\chi^2(2) = 8.977$, $p = .011$]. Moreover, MetS, body composition and symptoms (i.e. fatigue) significantly decreased while HRQoL, functioning, self-reported PA, self-efficacy, exercise motivation and satisfaction with life all increased significantly at T1 and T2 compared to T0.

Conclusions: Oncologic rehabilitation significantly increased PA and HRQoL in overweight or obese BC patients, receiving adjuvant ET. Furthermore, MetS, body composition and fatigue significantly decreased. Our findings highlight the beneficial effect of oncologic rehabilitation in these patients, who are particularly vulnerable for poor health outcome.

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1813MO Impact of systemic inflammation, intramuscular adipose tissue content, and EORTC-QLQ-CAX24 symptom scale on the prognosis of patients with advanced non-small-cell lung cancer

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Background: Cancer cachexia, characterized by systemic inflammation and muscle wasting, have been associated with poor survival in non-small-cell lung cancer (NSCLC) patients (pts). We hypothesized whether neutrophil-to-lymphocyte ratio (NLR) and the intramuscular adipose tissue/skeletal muscle index (IMAC/SMI) are associated with prognosis in metastatic NSCLC (mNSCLC). We also considered the quality of life (QoL) assessed via the EORTC-QLQ-CAX24 questionnaire on the prognosis of mNSCLC.

Methods: We analyzed a prospective cohort study (Apr/2017 to May/2020) of pts diagnosed with histologically-proven, treatment-naive, mNSCLC. After signed informed consent, we evaluated pts about demographic features and QoL using the EORTC-QLQ-C30 and -CAX24 scales. We used the baseline NLR as a surrogate of systemic inflammation. IMAC/SMI was evaluated using baseline plain computed tomography imaging at the third lumbar vertebra level. To test our hypothesis that NLR and IMAC/SMI are associated with prognosis, we carried out a Cox multivariate regression and included age, gender, ECOG-PS, and histology as covariates.

Results: We collected 128 pts, median age 65 y.o. (23-86), 79 (62%) male. Lung adenocarcinoma was the predominant histology (66%). ECOG-PS was classified as 0-1 in 27 pts (21%) and 2-4 in 101 pts (79%). Median overall survival was 468, 335, 106, 59, and 20 days in pts with ECOG-PS 0, 1, 2, 3, and 4, respectively. Elevated NLR (Hazard ratio (HR) = 1.26, 95% confidence interval (CI) = [1.01 - 1.59], p=0.038), IMAC/SMI ratio (HR = 1.37, 95% CI = [1.03 - 1.84], p=0.032), and CAX24 score for food aversion (HR = 1.52, 95% CI = [1.13 - 2.03], p=0.006) were associated with worse prognosis in mNSCLC. Indeed, higher ECOG-PS (Spearman rho=0.208, p=0.027), CAX24 scores for food aversion (rho=0.197, p=0.036), loss of control (rho=0.212, p=0.024), and eating and weight loss worry domains (rho=0.219, p=0.020) were associated with elevated NLR levels.

Conclusions: Elevated NLR, IMAC/SMA ratio, and CAX24 score for food aversion are independently associated with worse survival in mNSCLC. These data underscore the importance of cachexia features as negative prognostic factors in mNSCLC.

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1814MO Addition of aprepitant improves acute emesis control in children and adolescents receiving induction chemotherapy for acute myeloid leukaemia: A randomized, open-label trial

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Background: The use of aprepitant as an add-on prophylactic agent has been shown to improve chemotherapy-induced vomiting (CIV) in children receiving highly emetogenic chemotherapy. Anti-emetic prophylaxis is additionally challenging during induction chemotherapy for acute myeloid leukemia (AML), where the role of aprepitant has not been formally evaluated.

Methods: A randomized, open-label trial was conducted at our centre where chemotherapy naïve children between 5-18 years with diagnosis of AML being planned for induction chemotherapy (3+7 regimen) were included. All study participants received ondansetron (0.15mg/kg) 8 hourly for 8 days starting 30min prior to chemotherapy. Children belonging to aprepitant group additionally received aprepitant capsules (15-40 kg = days 1-3, 80 mg; >40 kg = day 1, 125 mg and days 2-3, 80 mg) starting from 1 h before chemotherapy. The proportion of patients with CIV in acute phase (day 1-day 8), delayed phase (day 9-day 13) and reported adverse effects were recorded. Acute and delayed nausea was also recorded as secondary end point.

Results: Total of 78 children were randomized (37 in the aprepitant group and 41 in the control group). The proportion of participants achieving a complete response in