Background: Palonosetron was greater than or equal to 0.25 mg when used alone or in combination with dexamethasone (DEX). The efficacy and safety of PALO 0.25 mg compared to 0.75 mg in combination with aprepitant (APR) plus DEX in patients (pts) with esophageal cancer remain unclear.

Methods: We retrospectively evaluated the efficacy and safety of PALO 0.25 mg versus 0.75 mg in combination with APR plus DEX in pts with localized or metastatic esophageal cancer who received cisplatin (CDDP)-containing chemotherapy between Nov. 2015 and Mar. 2017 at our institution. Complete response was defined as no emetic episodes and no rescue medication use.

Results: This study enrolled 58 and 55 pts who received PALO 0.25 mg and 0.75 mg. The baseline characteristics were similar between both groups. Sixteen (28%) and 24 (44%) pts received 3 treatment regimens (docetaxel, CDDP, and 5-fluorouracil), respectively. The complete response rates were 72% for 0.25 mg and 62% for 0.75 mg, with no significant difference (odds ratio [OR] = 0.62, p = 0.23). Percentages of no nausea was also similar with 40% and 33%, respectively (OR = 0.74, p = 0.44). Grade 2-3 constipation, defined as any grade of aspirating amitriptyline increase was more frequently observed in 0.75 mg group (38% vs. 58%, p < 0.05; 7% vs. 22%, p < 0.05).

In univariate and multivariate analyses, no association between baseline characteristics, including dose of PALO, and complete response rate was observed. Meanwhile, PALO 0.25 mg was associated with a lower risk of constipation and a better quality of life (QOL) compared to 0.75 mg (p < 0.05). This study indicates that the use of PALO 0.25 mg in combination with APR plus DEX may contribute to the decrease in constipation in pts with esophageal cancer who received CDDP-containing chemotherapy without compromising the anti-emetic effect compared to 0.75 mg.

Legal entity responsible for the study: National Cancer Center.

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343P
Head-to-head comparison of palonosetron versus granisetron for prevention of chemotherapy induced nausea and vomiting: Systematic review and meta-analysis

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Background: Palonosetron was greater than first-generation 5-HT3 receptor antagonists in the prevention of nausea and vomiting have been established in many systematic reviews. However, several recent randomized control trials manifested inconsistent results. Thus, we conducted a systematic review to evaluate the efficacy and safety of palonosetron versus granisetron in chemotherapy induced nausea and vomiting (CINV).

Methods: The PubMed, Embase, and The Cochrane Library databases were searched for studies published before April 2020. The meta-analysis was performed to estimate the pooled effect sizes by using a random effect model. The primary outcome was treatment responses of CINV (complete response rate, complete control rate, and total control rate). Secondary outcomes were 5-HT3 receptor antagonist related common side effects (constipation, and headache).

Results: Twelve randomized controlled trials, three prospective studies and one retrospective study were reviewed. Palonosetron was consistently statistically superior in any phase of complete response rate (acute phases: odds ratio [OR] = 1.37, 95% confidence interval [CI]: 1.03 to 1.82; delayed phases: OR = 1.57, 95% CI: 1.15 to 2.15; overall phases: OR = 1.37, 95% CI: 1.17 to 1.60), delayed phases of complete control rate and total control rate (OR = 1.45, 95% CI: 1.23 to 1.72; OR = 1.29, 95% CI: 1.01 to 1.65, respectively). Subgroup analysis indicated that there was no significant difference between palonosetron and granisetron in any phase of complete response rate when combined with NK, antagonists. No statistically significant difference was found between constipation and diarrhea toxicities of the two groups.

Conclusions: Although palonosetron significantly decreased the risk of chemotherapy induced nausea and vomiting in any phase, granisetron is seeming comparable effectiveness with palonosetron when adding NK, antagonists.

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344P
Single-centre analysis of anti-resorptive agent-related osteonecrosis of the jaw in lung cancer patients

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Background: Over the past two decades, anti-resorptive agent-related osteonecrosis of the jaw (ARONJ) has become a growing concern. We conducted a single-centre investigation of ARONJ and identified its risk factors in lung cancer patients in the real-world clinical setting. To our knowledge, we are the first to do so.

Methods: We retrospectively analysed lung cancer patients with bone metastases who had received anti-resorptive agents (zoledronate or denosumab) at the National Hospital Organization Kyoto Medical Center from October 2012 to September 2018. All ARONJ cases were diagnosed by the dentists according to the established diagnostic criteria.

Results: A total of 171 patients were reviewed, 13 (7.6%) of whom experienced ARONJ. Among the 13 patients, six (46.2%), four (30.8%), and three (23.1%) had adenocarcinoma, squamous carcinoma, and not otherwise specified, respectively. ARONJ was stage 2 in three (23.1%) patients and stage 3 in 10 (76.9%). More cycles of anti-resorptive agents [OR, 11.54; 95% CI, 2.47–53.99; P < 0.01], and longer survival duration (>2 years) [OR, 12.16; 95% CI, 3.17–46.65; P < 0.01] were independently associated with ARONJ in a multivariate analysis.

Conclusions: The incidence of ARONJ was relatively high in lung cancer patients with bone metastases. When using anti-resorptive agents, oncologists should closely monitor patients for ARONJ during the course of treatment and regularly consult with dentists.

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345P
Thromboembolic events in brain tumour patients on bevacizumab

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Background: Venous thromboembolism (VTE) is a common event in brain tumour patients. The risk is further believed to increase with the addition of bevacizumab. In view of limited literature addressing this issue, we found the need to conduct this study.

Methods: The database of the adult patients with primary brain tumour on bevacizumab therapy, was utilized to see the occurrence of VTE. The demographics were noted and Khorana score was calculated. Pearson correlation analysis was done and the Pearson correlation coefficient was estimated between Khorana score and VTE. P value <0.05 was considered statistically significant.

Results: Out of 80 patients, 7 (8.8%) had VTE events after starting bevacizumab. It was diagnosed as deep vein thrombosis (DVT) in 4 (5%) patients and pulmonary
Chemotherapy-induced neutropenia (CIN) is a main side effect in chemotherapy of breast cancer (BC) patients. It may lead to febrile neutropenia that requires hospitalization and antibiotic treatment resulting in increased cost and unfavourable outcome. Little is known about the incidence of CIN in Indonesia despite the fact that BC is the most prevalent malignancy. This study investigates the occurrence of severe CIN and identify its associated risk factors.

Methods: We considered 123 newly-diagnosed BC patients without terminal conditions and multiple comorbidities from July 2018 to July 2019. All patients received a three-weekly adjuvant, neo-adjuvant, or palliative chemotherapy without primary prophylaxis of GCSF. We defined severe CIN as the condition where absolute neutrophil count <0.5x10^9/L during any chemotherapy cycle. We evaluated the association of clinical, pathological, and treatment factors with the risk of CIN in a logistic regression methodology, adjusted for patients’ demographics.

Results: In this cohort, 73% patients had experienced severe CIN at least once during their chemotherapy. The risk of severe CIN in the 2nd, 3rd, and 4th cycle did not differ from the 1st cycle. However, after the 5th cycle, the risk significantly increased (p values ≤ 0.001 up to the 8th cycle). Higher age, poor ECOG index, lower pre-treatment monocyte count, and palliative intention were associated with the increased risk of severe CIN, while diabetes comorbidity was associated with the decreased risk (p=0.049, <0.001, 0.022, 0.037, and 0.017, respectively).

Conclusions: We have identified some risk factors for increasing the risk of severe CIN. These factors can serve as a guidance to support care and recognize those at high risk.

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Disclosure: All authors have declared no conflicts of interest.

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### Occurence and risk factors of chemotherapy-induced neutropenia in patients with breast cancer: A hospital-based assessment in Indonesia

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Background: Chemotherapy-induced neutropenia (CIN) is a main side effect in chemotherapy of breast cancer (BC) patients. It may lead to febrile neutropenia that requires hospitalization and antibiotic treatment resulting in increased cost and unfavourable outcome. Little is known about the incidence of CIN in Indonesia despite the fact that BC is the most prevalent malignancy. This study investigates the occurrence of severe CIN and identify its associated risk factors.

Methods: We considered 123 newly-diagnosed BC patients without terminal conditions and multiple comorbidities from July 2018 to July 2019. All patients received a three-weekly adjuvant, neo-adjuvant, or palliative chemotherapy without primary prophylaxis of GCSF. We defined severe CIN as the condition where absolute neutrophil count <0.5x10^9/L during any chemotherapy cycle. We evaluated the association of clinical, pathological, and treatment factors with the risk of CIN in a logistic regression methodology, adjusted for patients’ demographics.

Results: In this cohort, 73% patients had experienced severe CIN at least once during their chemotherapy. The risk of severe CIN in the 2nd, 3rd, and 4th cycle did not differ from the 1st cycle. However, after the 5th cycle, the risk significantly increased (p values ≤ 0.001 up to the 8th cycle). Higher age, poor ECOG index, lower pre-treatment monocyte count, and palliative intention were associated with the increased risk of severe CIN, while diabetes comorbidity was associated with the decreased risk (p=0.049, <0.001, 0.022, 0.037, and 0.017, respectively).

Conclusions: We have identified some risk factors for increasing the risk of severe CIN. These factors can serve as a guidance to support care and recognize those at high risk.

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### Anti-VEGF inhibitors and renal safety in onco-nephrology consortium: Urinary protein/creatinine ratio (VERSION UP study)

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Background: Anti-angiogenesis inhibitors are used to investigate the clinical significance of urine protein quantitative test UCPR (ratio of urinary protein amount measured and creatinine concentration in urine) when anti-angiogenesis inhibitors are used.

Methods: From January 2018 to December 2018, a survey was conducted based on the records of gastric cancer and colorectal cancer cases with urine protein qualitative test (UV) of 2+ or higher during the use of anti-angiogenesis inhibitors at 9 institutions participating in Onconephrology Consortium. The primary endpoint was the ratio of UCPR worst value less than 2 (Low UCPR) in UV 2+ cases. The secondary endpoints were comparison of Low UCPR and UCPR worst value2+ (High UCPR), the use of statins or angiotensin inhibitors, changes in urine protein test values (qualitative/quantitative), subsequent treatment information, and patient background factors and other relationships.

Results: Among 71 cases enrolled, the proportion of Low UCPR in UV 2+ cases (n=53) was 66% (n=35). In a comparison between Low (n=36) and High UCPR cases (n=24), High UCPR tended to occur in cases of heavy body weight, and its cut-off value was 52.45 kg (OR 4.25, 95%CI 1.30-13.86, p=0.017). A significant correlation was also observed between UCPR levels and single dose of bevacizumab (p=0.033) or ramcimab (p=0.018).

Conclusions: The relationship between UCPR levels and body weight or single dose was shown, but there is a possibility that physical disparity and the amount of creatinine excretion may have an effect.

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