

## Rate of complete chemotherapy as planned with comprehensive geriatric assessment and intervention in intermediate and high risk elderly cancer patients

M. Maikami, A. Petchlorlian, N. Poovorawan, N. Parinyanitikul

**Background:** The Geriatric 8 (G8) is a simplified screening tool to select the appropriate elderly patients for chemotherapy. Vulnerable patients with impaired G8 score might need additional comprehensive geriatric assessment (CGA) with intervention for individual problem. However, the impact of CGA and therapeutic intervention on rate of complete chemotherapy among these patients is rarely addressed.

**Objective:** This study aims to evaluate the benefit of CGA guided intervention to maintain dose intensity of chemotherapy.

**Methods:** A single center, randomized, open-label study which included newly diagnosed elderly cancer patients (age  $\geq 65$ ) with impaired G8 score ( $\leq 14$ ) who were designated for chemotherapy. After the enrollment, patients were randomized to 1:1 ratio to receive CGA guided intervention (intervention group) or usual care (control group). The primary end point was the rate of complete chemotherapy as planned. Associated factors for complete chemotherapy were evaluated.

**Results:** Between June 2019 and December 2019, 52 patients were randomized (26 patients for intervention group and 26 patients for control group). Mean age was 72 years, 59.6% was female, 40.4% had breast cancer and 51.9% had early stage cancer. With G8 assessment, 55.8% had intermediate (score 11-14) and 44.2% had low (score  $< 11$ ) impaired G8 score. All baseline characteristics were balanced. Using per protocol analysis, there was no significant difference in rate of complete chemotherapy between groups (57.1% vs 50%, OR 1.33; 95%CI 0.42-4.24;  $p=0.62$ ). In univariate analysis, age below 75 years, BMI  $>20$  kg/m<sup>2</sup>, intermediate G8 score and serum albumin level above 4 g/dl showed significant factors for improving rate of complete chemotherapy.

**Conclusions:** This is the first study in south-east Asia using CGA and intervention to improve rate of completion in chemotherapy. Although the CGA and intervention had no significant difference but had tendency to be better in completion rate of chemotherapy than usual care.