

## **Factors Associated with Pain and Quality of Life Among Breast Cancer Patients Undergoing Chemotherapy in a National Tertiary Care Hospital in Sri Lanka**

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Breast cancer remains the most common cancer among woman globally and it significantly contributes to the cancer morbidity and mortality in women worldwide. Chemotherapy as an effective treatment modality improves survival rates, however, it leads to detrimental effects such as pain which significantly impact on patients' quality of life (QoL). This study aimed to assess pain severity and QoL among breast cancer patients undergoing chemotherapy in a national tertiary care hospital in Sri Lanka and to identify factors associated with pain and QoL. A descriptive cross-sectional study was conducted in a consecutive convenience sample of 199 female breast cancer patients who underwent at least one cycle of chemotherapy at female oncology ward in National Hospital, Kandy, Sri Lanka. Participants' QoL was assessed using Validated Sinhala and Tamil versions of European Organization for Research and Treatment of Cancer Core 30 (EORTC QLQ-C30) and QoL Questionnaire specific to Breast Cancer (QLQ-BR23) and their self-reported pain intensity was measured using Visual Analogue Scale (VAS). Demographic and clinical characteristics were also documented. Chi-squared and Fisher's Exact tests were used to assess associations of socio-demographic and clinical factors with pain severity and QoL ( $p < 0.05$ ). Most participants (84.9%) experienced mild pain, while 11.6% had moderate pain and 3.5% had severe pain. Pain severity was significantly associated with age ( $p = 0.027$ ), cancer stage ( $p = 0.000$ ), time since diagnosis ( $p = 0.003$ ), and prior treatments ( $p = 0.020$ ). Poor QoL was reported by 78.4% of participants. QoL was significantly associated with educational level ( $p = 0.000$ ), occupation ( $p = 0.008$ ), residential area ( $p = 0.000$ ), and number of chemotherapy sessions ( $p = 0.015$ ). Majority of participants experienced mild pain, and pain associated with age, cancer stage, time since diagnosis and prior treatments. Poor QoL was reported among majority of participants and QoL associated with educational level, occupation, residential area and number of chemotherapy sessions. Future research should adopt longitudinal designs to capture the evolution of pain and QoL over time, along with qualitative approaches to explore patient experiences.

**Keywords:** Chemotherapy, quality of life, visual analogue scale, pain intensity