MO2 – 4 – 1 Sequential Anthracycline-Taxane Chemotherapy in Node-positive Breast Cancer Amongst Asian Patients - Real-world Outcomes

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Background: The use of taxanes in the adjuvant setting has been contradictory in randomized trials. Two meta-analyses supported the use of adjuvant taxanes which have since been incorporated into standard guidelines. However, their benefit needs to be validated in the real-world population.

Methods: We retrospectively analyzed the outcomes of patients with node positive breast cancer treated with sequential 5-fluorouracil, epirubicin and cyclophosphamide (FEC) and docetaxel (FEC-D) compared to FEC alone in a university hospital in Kuala Lumpur, Malaysia. The primary outcome was overall survival (OS) and the secondary outcomes were disease free survival (DFS) and toxicity.

Results: Between 2007 and 2011, 318 patients with node-positive breast cancer were recruited with 131 received FEC and 187 received FEC-D. Mean duration of follow up was 59.7 months for both groups. The 5-year OS was significantly higher with FEC-D (78.8% vs 64.2%; p value = 0.014). Greater benefit was seen in postmenopausal patients, patients with 1-3 positive nodes and T2-4 tumours. The 5-year DFS was no different between the two groups with 55.4% in the FEC arm vs. 69.4% in the FEC-D arm (p value = 0.063). However the median DFS was not reached for FEC-D. The use of FEC-D with the hazard ratio 0.6 (95% CI 0.4 - 0.9; p value = 0.014), tumours 2cm or less, 1-3 positive nodes and hormone receptor positivity were prognostic for survival.
Patients with FEC-D experienced higher toxicity with hospitalization rates of 25.1% of patients needing at least one hospitalization (p value = 0.005). Grade 3 and 4 febrile neutropenia was higher with FEC-D (22.5% vs. 8.4%, p value = 0.001) as was the use of granulocyte colony stimulating factors (GCSF). The rates of chemotherapy interruptions and dose reductions were similar in both treatment arms.

Conclusions: Our study confirmed the benefit of sequential anthracycline-taxane chemotherapy in node positive breast cancer in the real-world albeit with higher toxicity.