Impact of Chemotherapy-Induced Menopause in Young Women with Non-Metastatic Breast Cancer

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Background: Breast cancer mostly affects women over 50, but 10 to 15% of patients are still in childbearing age and are mostly treated by chemotherapy. Young women could face a chemotherapy-induced menopause (CIM), so it seems important to study its impact on quality of life (QOL). In this context, the Jean Perrin Comprehensive Cancer Center has promoted MENOCOR study. The main objective of this trial is to assess the CIM's impact on QOL 2 years after chemotherapy.

Methods: Menocor is a prospective, multicenter study, in women aged 18 to 45 years and diagnosed with a non-metastatic breast cancer. The main objective is assessed using the functional score of the QLQ-C30. The other aspects of QOL are studied using self-questionnaires (incl. QLQ-BR23) and blood samples are collected to evaluate the hormonal variations (AMH, FSH and estradiol). In our interim analysis, 2 groups of patients have been defined: amenorrhea ≤ 9 months and amenorrhea > 9 months that characterises the CIM. Data to compare both patients groups concern outcomes at 6 months post-chemotherapy.

Results: 59 patients are included in this analysis: 25 women (42%) had an amenorrhea > 9 months. No significant difference between the 2 groups was found for the functional scores of the QLQ-C30 and QLQ-BR23 (p=0.09 and p=0.67, resp.). However other parameters showed that the CIM group differs from the other one: in particular amenorrhea appears faster in CIM patients [lower number of chemotherapy cycles until amenorrhea (p=0.005; 2.8±0.9 vs 4.0±1.6)] and they are 3 years older (p=0.03; 40.8±4.1 vs 38.0±5.9). Regarding hormonal variations, CIM patients saw their AMH levels decrease stronger between inclusion and end of chemotherapy (p=0.03).

Conclusion: We expect that with the inclusion of the next 180 patients, QOL differences will reach significance. This interim analysis underlines that amenorrhea > 9 months depends on particular clinical parameters which could enable to anticipate CIM in the future.