INTRODUCTION

An uncontrolled growth of cells leads to malignant tumours (cancer), which have a tendency to invade nearby parts of the body.\(^1\)

Cancer statistics including prevalence, mortality and morbidity dreadfulfulness of the disease. Global burden of cancer rises to 14.1 million new cases and 8.2 million cancer deaths in 2012. A 1.7 million women were diagnosed with breast cancer. It is also the most common diagnosed malignancy in India. In India it is estimated that there are nearly 2 to 2.5 million cancer cases. Over 7 to 9 lakh new cases and 3 lakh deaths occur annually in India due to breast cancer.\(^2\)

Conventional treatment modalities for breast cancer are surgery, chemotherapy, radiation therapy and hormonal treatment in some cases. Adjuvant or neo-adjuvant chemotherapy in breast cancer patients helps to control cancer growth.\(^3\) However many patients suffer from the side effects of chemotherapy, hampering their Quality of life, immune system and sometimes postponing schedule of Chemotherapy. Side-effects of chemotherapy are exhibited on the various systems of the body i.e. nausea, loss of appetite, stomatitis, vomiting, diarrhea, constipation, pile are the GI related side-effects. Joint pain, bone pain, weakness are the side-effects related to musculoskeletal system. Myelosupression leading to low hemoglobin, low WBCs and low platelets are also very common toxicities during the course of chemotherapy.\(^4\)

Many drugs like Mesna with Ifosfamide and cytoprotector like Amifostine have been tried to prevent or control chemotherapy related toxicities, but these agents have their own side-effects.\(^5\)

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Thus there is a need to explore an adjunct treatment that helps to minimize toxicities of chemotherapy and thus improves Quality of life of cancer patients.

In our Cancer Research Center, we had clinically assessed efficacy of Ayurvedic medicines in management of side-effects of chemotherapy in all types of cancers at different stages and grades. The assessment of side-effects would be difficult to understand as the chemotherapy regimen differs according to organ and type of cancer. Thus specific organ i.e. breast, the breast cancer has been chosen to assess role of Ayurvedic treatment on toxicities of chemotherapy. Drugs used for chemotherapy are mainly disturbing functions of Jatharagni, Annavaha, Purishavaha, Rasavaha and Raktavahsrotas and are causing Pitta and Vatadushti exhibiting symptoms like Anannabhilasha (nausea), Agnimandya (loss of appetite), Chhardi (vomiting), Mukhapaka (stomatitis), Atisara (diarrhea), Malavibandha (constipation), Sraviarsh (bleeding piles), Jwara (fever), Twakvaivarnya (skin and nail discolouration). Ayurvedic medicines chosen for the study are Deepana – Pachana (digestive), Pitta shamak (anti-inflammatory) and Rasayan (immunomodulatory). Due to these actions the medicines improve Quality of Life and thus impart feeling of well-being.

Hence this study was undertaken to assess the role of Ayurvedic medicines (CG4 - which is a combination of four Ayurvedic formulations) in management of side effects of chemotherapy in breast cancer.