Supportive and palliative care

Efficacy of ginger (G) in control of chemotherapy induced nausea and vomiting (CINV) in breast cancer patients (BCPs) receiving doxorubicin-based chemotherapy (DBCT)

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Aim/Background: This trial aimed to investigate the efficacy and safety of G. in reducing CINV in newly diagnosed BCPs receiving DBCT.

Methods: In this randomized prospective double blind controlled trial 150 newly diagnosed BCPs received DBCT. Chemotherapy combinations consisted of 3 regimens of doxorubicin and cyclophosphamide (AC), or docetaxel, doxorubicin, and cyclophosphamide (TAC), or cyclophosphamide, doxorubicin, and 5-FU (CAF). They were randomly assigned to receive 1 gram daily (2 capsules of 250 mg every 12 hours) of G. or placebo for 3 days in each chemotherapy cycle for a sum of 3 cycles. They received the standard antiemetic regimen simultaneously also. They completed and delivered a questionnaire about the daily severity of N. and V. and potential side effects of antiemetic treatment after any chemotherapy cycle. N. & V. were scored according to Common Terminology Criteria for Adverse Events (CTCAE) version 4.0.

Results: At the end of study of 150 enrolled pts, 119 (57 pts in G. group and 62 pts in placebo group) received 3 cycles of chemotherapy and had been correctly completed questionnaires. Based on statistical analysis, total N. severity in G. group (1.428) was slightly more than placebo group (1.400). Total V. severity in G. group (0.714) was less than placebo group (1.037). First day V. severity in G. group (0.814) was less than placebo group (1.098). This differences were not statistically significant. V. severity in the AC subgroup of G. group (0.643) was less than the AC subgroup of placebo group (1.131) and the differences was statistically significant. N. severity in AC subgroup and N. & V. severity in other subgroups did not demonstrate significant differences in G. and placebo groups. N. severity in subgroup pts under 49 years old was significantly higher than those aged more than 49 years old in both G. and placebo groups. The rate of dyspepsia in G. group (19.3%) was higher than placebo group (11.3%); however this differences was not statistically significant.

Conclusions: This study demonstrate that G. has potential effectiveness on CINV in DBCT in BCPs; however this effect is insignificant in the presence of neurokinin-1 receptor antagonists.

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