Women may experience more side effects than men during gastric cancer chemotherapy

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Influence of sex on chemotherapy efficacy and toxicity in oesophagogastric (OG cancer): a pooled analysis of 4 randomised trials

Women may experience certain chemotherapy side-effects including nausea, vomiting, diarrhoea, mouth ulceration and hair loss more frequently than men, according to a new
analysis of oesophageal and stomach cancer patients.

The study, led by The Royal Marsden NHS Foundation Trust and presented on Friday 19 October 2018 at the European Society for Medical Oncology (ESMO) Congress 2018,[5], analysed data from four randomised trials carried out in the UK and Australasia. All four studies looked at commonly used first-line chemotherapy combinations in advanced oesophageal and stomach cancer.

Drawing on data from 1,654 patients (1,328 men and 326 women), the researchers found that women experienced significantly higher rates of nausea and vomiting (89 per cent for women versus 78 per cent for men), diarrhoea (54 per cent vs 47 per cent), mouth ulceration (50 per cent vs 41 per cent) and hair loss (81 per cent vs 74 per cent). There was also a trend towards more infections in women as a result of low white blood cell counts, although this did not reach statistical significance.

The occurrence of serious adverse events during treatment - potentially life-threatening complications which often require hospital admission - was also higher in women. When looking at chemotherapy effectiveness, there was no difference in survival between men and women, although overall response rate to chemotherapy - the proportion of patients experiencing a reduction in tumour size - was higher in men.

Dr Michael Davidson, Clinical Research Fellow at The Royal Marsden NHS Foundation Trust, said: ?Our findings show that women seem to experience higher rates of certain chemotherapy side effects than men in this cancer type, particularly those related to gastro-intestinal function.

?We have known for a long time in oncology that there are differences between males and females in the incidence and prognosis of many non gender-specific cancers. However, we are only just beginning to understand how genetic and biological differences between men and women influence cancer development and response to treatment. There is also on-going research looking at differences in how men and women respond to newer anti-cancer treatments such as immunotherapy, and it is an area that is likely to become increasingly important in the future.?  

Professor David Cunningham, Director of the NIHR Biomedical Research Centre at The Royal Marsden and The Institute of Cancer Research, London, said: ?This work adds to the growing body of evidence that gender can be an important factor in cancer treatment, and that clinicians need to be aware of such differences. For example, knowing female patients are more likely to experience side effects such as nausea and vomiting or diarrhoea may allow for more tailored chemotherapy education and support to be given in order to optimise the management of these common problems.?

This study was funded by The Royal Marsden?s GI and Lymphoma Unit [6], the NIHR Biomedical Research Centre [7] at The Royal Marsden and The Institute of Cancer Research (ICR) [8], and The Royal Marsden Cancer Charity [9].


Links
[8] https://www.icr.ac.uk/