

Estetrol for the treatment of advanced breast cancer

Herjan JT Coelingh Bennink

Pantarhei Oncology, Zeist, the Netherlands

Estrogens are known to stimulate the growth of existing estrogen-receptor positive BC, but estrogens are also an effective treatment of BC under special conditions. This contradictory knowledge is known as the “estrogen paradox”. The data summarised in this presentation demonstrate that high-dose estrogens is an effective treatment of advanced breast cancer after the occurrence of resistance to endocrine anti-estrogen treatment. Essential for efficacy is an extended period of estrogen deprivation before the tumour is subjected to estrogen treatment (the “gap hypothesis”). However, high-dose estrogens have been abandoned for BC treatment due to cardiovascular side-effects.

High dose estetrol (E4) may be a new treatment option for patients with advanced breast cancer, since this fetal estrogen has less interference with liver function and is expected to be less harmful for the CV system, whereas data from non-clinical and clinical studies suggest anti-breast tumour effects.

A phase IB/IIA, dose-escalation, safety and proof of concept study with high doses of E4 has been performed in Germany in postmenopausal patients with advanced ER+/HER- breast cancer. The study has been completed clinically and the preliminary anti-tumour and quality of life results will be presented, confirming the “Dual Efficacy” concept of high dose E4 in advanced breast cancer.