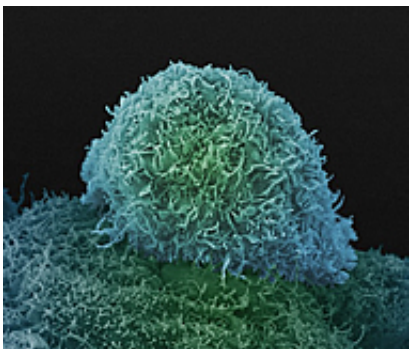


Scientist testing innovative new method to work out cancer patients' ideal dose of chemotherapy

August 4 2014



Study to work out cancer patients' ideal dose of chemotherapy

A leading Southampton scientist is testing a new way of measuring body composition, which could help ensure that breast cancer patients receive the optimum dose of chemotherapy.

Almost 1,200 women are diagnosed with [breast cancer](#) in Hampshire each year on average, and over 250 women sadly go on to die from the disease each year on average , many because they have become resistant to [chemotherapy](#).

Currently, chemotherapy doses are calculated based upon a patient's weight and height, but this calculation may not be accurate in patients who are very obese or underweight. The effectiveness of chemotherapy,

and what [side effects](#) are experienced, may depend on the fat and muscle content of a person's body, so it is important that this is calculated correctly.

Existing methods to measure [body composition](#), are complex and time-consuming, therefore Dr Ellen Copson, a Senior Lecturer at the University of Southampton and an oncology consultant at the University Hospital Southampton, has been awarded a grant worth around £20,000 by research charity Breast Cancer Campaign, to test a new, simpler method of measuring body composition, called 'segmental bioelectrical impedance spectroscopy' (sBIS).

sBIS uses a machine resembling a weighing scale which estimates body fat using tiny electrical currents that pass through the person's body. Dr Copson is recruiting over 35 people with breast cancer who are about to receive chemotherapy for their treatment, to collect information on ease of use, as well as how accurate this method is compared to existing methods of measuring body composition.

The pilot project will allow Dr Copson to gather data for a larger project to find out how body composition may influence how effective a patient's chemotherapy is, as well as what side effects they experience. Common side effects of chemotherapy include fatigue, nausea and hair loss, but side effects depend on a range of factors, such as what type of chemotherapy a patient is receiving.

Katherine Woods, Research Communications Manager at Breast Cancer Campaign, says: "This research will help doctors in the future decide the most appropriate dose of chemotherapy for individual patients, improving their chances of survival, but also minimising side effects. Dr Copson's research could bring us one step closer to our goal that by 2025 improved and more personalised treatments for breast cancer will reduce mortality from breast cancer by half."

Provided by University of Southampton

Citation: Scientist testing innovative new method to work out cancer patients' ideal dose of chemotherapy (2014, August 4) retrieved 26 April 2024 from <https://medicalxpress.com/news/2014-08-scientist-method-cancer-patients-ideal.html>

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