Beta-blockers 'cut cancer spread'

Blood pressure drugs may be able to reduce the ability of breast cancer to spread around the body, researchers have told a European conference.

A joint UK and German study found that cancer patients taking beta-blockers had a lower risk of dying.

The drugs may block hormones that trigger the spread of cancer cells.

However, experts stressed that more evidence from bigger studies would be needed before the drug could be given as part of routine treatment.

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Dr Des Powe, Queen's Medical Centre

Breast cancer, which affects more than 30,000 people in the UK each year, is most easily tackled when tumours are confined to the breast only.

When cancer cells migrate to other parts of the body, and start growing, a process known as metastasis, the likelihood of successful treatment begins to fall.

The biological processes which trigger metastasis are still not fully understood.

The latest research, presented at the European Breast Cancer Conference in Barcelona, builds on earlier laboratory studies which suggest that the ability of cancer cells to increase in number and spread is boosted by the presence of stress hormones.

Beta-blockers attach themselves to the same receptors on cancer cells used by these hormones, potentially reducing their ability to stimulate the cell and trigger spread.
They are already taken by approximately two million people in the UK.

To test this theoretical cancer-fighting ability, Dr Des Powe, from Queen's Medical Centre, Nottingham, in collaboration with Professor Frank Entschladen from Witten University in Germany, looked at three groups of breast cancer patients, a total of 466 people.

The first group had high blood pressure, also called hypertension, and were taking beta-blockers, the second had high blood pressure, but were taking something different for it, while the third had no blood pressure problems.

In the 43 who were taking beta-blockers, there was a significant reduction in both cancer metastasis, and new tumours within the breast. Overall they had a 71% lower chance of dying from breast cancer compared with the other groups.

Small-scale research

Dr Powe said: "It is reasonable to speculate, therefore, that some non-hypertensive women with breast cancer will respond favourably to beta-blocker treatment, though doses and side-effects would need to be investigated in clinical trials."

However, he said that the study was "relatively small" and its results would need to be reproduced in a larger group of patients.

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Meg McArthur, from Breakthrough Breast Cancer, welcomed the findings: "Although this is early stage research, these results show that beta blockers could play a role in reducing the risk of metastatic breast cancer. This is a positive step forward as it could potentially lead to survival improvements for people affected with this condition.

"However, as the study is quite small, we would like to see further research in this area."