

Beta Blockers could stop breast cancer spreading

September 30 2011

(Medical Xpress) -- Cancer Research UK scientists are investigating whether beta-blockers hold the key to preventing breast cancer spread and improving survival. Promising early results will be presented on the eve of breast cancer awareness month at the Royal Society of Medicine, today (Friday).

Dr Des Powe, from Nottingham University Hospitals NHS Trust, working in collaboration with scientists from Belfast and Germany, has recently been funded by Cancer Research UK to find out whether women who take beta-blockers – drugs routinely used to treat high blood pressure and anxiety – before and during their [breast cancer](#) treatment are less likely to have a cancer recurrence and if they survive for longer.

Previously, in the first ever study of beta blockers and breast cancer, published last year in the journal *Oncotarget*, the researchers found that out of 466 breast cancer patients – those taking beta blockers before their operation for breast cancer were less likely to die several years after their treatment.

This research built on early findings in the laboratory that showed a biological mechanism by which beta-blockers can stop cells moving and cancer from spreading.

Breast cancer spread is the biggest cause of death from the disease – it's thought that around 30 per cent of breast cancers spread and yet these account for up to 90 per cent of all deaths from the disease. So it's vitally

important to find new and effective ways of stopping cancer cells from spreading to other parts of the body.

Dr Des Powe, Cancer Research UK-funded scientist from Nottingham University Hospitals NHS Trust, said: “Cancer can be thought of as having two distinct phases - before and after the disease has spread. Many women will be successfully treated for their initial breast tumour but in some, the original tumour leaves a legacy – a daughter of the primary cancer. This means cells leave the original tumour and move around the body in a process called metastasis.

“It is absolutely crucial to conquer cancer spread if we are to really improve breast cancer [survival](#) as this problem causes nearly all deaths from the disease. So it’s very exciting that we have been funded by Cancer Research UK to take this work further and see whether beta blockers really do improve survival in a large population of breast cancer patients. This study will be sufficiently large to determine whether we should progress to clinical trials and identify which type of beta-blockers have the strongest effect.

Dr Julie Sharp, senior science information manager at Cancer Research UK, said: “As [beta-blockers](#) are already a known drug this could be a very interesting development, which has the potential to save a large number of lives and we hope to have to see study results within the next year.”

More information: Beta-blocker drug therapy reduces secondary cancer formation in breast cancer and improves cancer specific survival. *Oncotarget*. 2010 Nov;1(7):628-38.

Provided by Cancer Research UK

Citation: Beta Blockers could stop breast cancer spreading (2011, September 30) retrieved 6 May 2024 from <https://medicalxpress.com/news/2011-09-beta-blockers-breast-cancer.html>

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