Study confirms long term benefits of tamoxifen

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Taking tamoxifen for 10 rather than five years halves the risk of women dying from the most common kind of breast cancer, according to new research being presented at this year's **ASCO conference (http://abstracts2.asco.org/AbstView_132_112995.html)** .

The Cancer Research UK study shows that oestrogen receptor positive breast cancer patients taking tamoxifen for longer than the recommended five years are better protected against recurrence and are less likely to die from the disease.

The 'aTTom' study* looked at almost 7,000 women with breast cancer who, after five years of taking tamoxifen, either continued taking the drug for another five years or stopped treatment. Among women who took tamoxifen for 10 years, 25 per cent fewer had recurrences of breast cancer and 23 per cent fewer died, compared to women who took the drug for just five years.

Dr Daniel Rea, clinical lead researcher based at the University of Birmingham, said: "These results are important as they establish that giving tamoxifen for longer than the current standard of five years significantly cuts the risk of breast cancer returning.

"Doctors are now likely to recommend continuing tamoxifen for an extra five years and this will result in many fewer breast cancer recurrences and breast cancer deaths worldwide. Tamoxifen is cheap and widely available so this could have an immediate impact."

Around 75 per cent of breast cancers are oestrogen receptor positive and may benefit from hormone therapy. The female sex hormone oestrogen encourages breast cancers to grow by activating oestrogen receptors. Tamoxifen blocks these receptors, reducing the chance of breast cancer returning after surgery or developing in the other breast.

Despite the benefits of tamoxifen in preventing breast cancers from returning, it does have side effects. Women taking tamoxifen can experience side effects similar to menopausal symptoms, such as night sweats and hot flushes. Rare but serious side effects of tamoxifen include increased risk of endometrial cancer (cancer of the lining of the uterus), blood clots, and stroke.

In this study no increase in the incidence of stroke was observed with 10 years of tamoxifen therapy, though endometrial cancer risk was higher in this arm. Endometrial cancer is often detected early, when it is usually curable; the researchers estimate that for every endometrial cancer death that occurs as a side effect of long-term tamoxifen, there would be 30 deaths from breast cancer prevented.

Professor Richard Gray, based at the University of Oxford and presenting the aTTom results at ASCO, said: "Five years of tamoxifen is already an excellent treatment but there have been concerns that giving it for longer might not produce extra benefits and could even be harmful. The aTTom study establishes that the benefits of taking tamoxifen for longer greatly outweigh the risks."

Kate Law, director of clinical research at Cancer Research UK, said: "Large clinical trials like aTTom are vitally important to understand how drugs such as tamoxifen work and how best to use them. We need these sorts of studies so we can be sure the benefits from cancer drugs outweigh the side-effects that they may have."

Notes to editors

* The study also received funding from the Medical Research Council

The University of Birmingham is at the forefront of developing new treatments to improve quality of life for thousands of cancer patients. To find out more about the breadth of the University's Cancer Research and how you can support it, please visit the **Circles of Influence website (http://www.birmingham.ac.uk/alumni/giving/index.aspx)** .

About Cancer Research UK

• Cancer Research UK is the world's leading cancer charity dedicated to saving lives through research

• The charity's pioneering work into the prevention, diagnosis and treatment of cancer has helped save millions of lives.

• Cancer Research UK receives no government funding for its life-saving research. Every step it makes towards beating cancer relies on every pound donated.

• Cancer Research UK has been at the heart of the progress that has already seen survival rates in the UK double in the last forty years.

• Cancer Research UK supports research into all aspects of cancer through the work of over 4,000 scientists, doctors and nurses.

• Together with its partners and supporters, Cancer Research UK's vision is to bring forward the day when all cancers are cured.

For further information about Cancer Research UK's work or to find out how to support the charity, please call 0300 123 1022 or visit their **website (http://www.cancerresearchuk.org)** .

About Birmingham Health Partners

Birmingham Health Partners (BHP) (http://www.birminghamhealthpartners.co.uk) is a landmark joint working agreement between the University of Birmingham and University Hospitals Birmingham NHS Foundation Trust. Established in November 2011, it enhances the longstanding working relationship between the two institutions and enables patients to benefit from new therapies delivered by expert clinicians working alongside top research scientists and world-leading clinical trials teams.

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