

PRESS RELEASE

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Regular paracetamol use could reduce ovarian cancer risk by almost a third

Using paracetamol regularly could reduce the risk of ovarian cancer by almost a third, according to a detailed analysis in the July issue of **British Journal of Clinical Pharmacology**.

A research team from Athens University found that the risk fell by up to 30 per cent when they analysed the results of major studies carried out on more than 746,000 women over a six-year period.

4,405 of the women in the eight major studies – from the USA, UK and Denmark – had ovarian cancer.

The team looked at all studies covering paracetamol and ovarian cancer from 1966 to 2004. These were then scrutinised using sophisticated meta-analysis techniques.

“Meta-analysis involves doing a large amount of research into what has been published, summarising the results and combining them using statistical methods” explains lead researcher Dr Stefanos Bonovas from the Greek Ministry of Health. “Analysing a wide range studies can often throw new light on a problem and raise new research questions.

“In this case our analysis of eight major studies – covering nearly three-quarters of a million women - revealed a strong correlation between paracetamol use and a reduced risk of ovarian cancer.”

Seven of the studies looked at the links between paracetamol use and the incidence of ovarian cancer and the largest study looked at the link between paracetamol use and ovarian cancer deaths.

The researchers used a working definition of “regular use” as the highest frequency of drug use reported in the individual studies. This definition varied slightly between studies. In the largest study – which covered more than a third of the women diagnosed with ovarian cancer – it was defined as more than 30 tablets in the month before the study started.

“Ovarian cancer remains the most fatal gynaecological malignancy” says Dr Bonovas. “Its high mortality rate – mainly due to a combination of ineffective screening and the limited success of therapies for advanced disease - makes ovarian cancer a major health concern.

“Strategies that focus on prevention may therefore provide the most rational approach for reducing deaths from this form of cancer.

“Because paracetamol is so widely used, a link with a decreased risk of ovarian cancer could have important public health implications.”

The authors believe that further research among women with a high risk of developing ovarian cancer would provide further clues to the drug’s protective qualities.

“The risks of long-term paracetamol use - including liver and chronic kidney failure – may outweigh the potential benefits of preventing ovarian cancer in low-risk cases” concludes Dr Bonovas.

”However we believe that a randomised trial in women with a high risk of developing the disease might be appropriate. Further research is also needed into how this protective mechanism actually works.

The authors stress that they are not suggesting that women adopt this possible method of risk prevention at this stage.

“But we do feel that our study highlights the need for further research into this highly important link between a simple over-the-counter medicine and a very aggressive form of cancer” says Dr Bonovas.

Dr Bonovas works for the Department of Epidemiological Surveillance and Intervention at the Greek Ministry of Health’s Hellenic Centre for Infectious Diseases Control and carries out his research at Athens University.

This study was carried out in association with University researcher Dr Kalitsa Filioussi, under the supervision of Dr Nikolaos M Sitaras, Associate Professor of Medicine in the Department of Pharmacology.

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Notes to editors

- Paracetamol use and risk of ovarian cancer: a meta-analysis. Bonovas et al. **British Journal of Clinical Pharmacology**. Volume 62.1, pages 113-121 (July 2006).
- The **British Journal of Clinical Pharmacology** is published monthly on behalf of the British Pharmacological Society by Blackwell Publishing. It contains papers and reports on all aspects of drug action in humans: invited review articles, original papers, short communications and correspondence. The Journal, which was first published in 1974, enjoys a wide readership, bridging the gap between the medical profession, clinical research and the pharmaceutical industry. www.blackwellpublishing.com/bjcp