Drug trio slashes deaths in heart patients
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Shaoni Bhattacharya

Heart patients taking specific combinations of drugs can dramatically slash their risk of an untimely death compared with those taking single drugs, suggests a new study.

The results support the concept of a "polypill" – a single combined pill that would significantly cut heart and stroke deaths in the western world. A polypill containing six existing drugs would cut deaths by about 80% if given to everyone over the age of 55, suggested researchers in June 2003.

The proposal was based on a massive analysis of 750 trials of the various drugs. However, there was no direct evidence to back the effectiveness of combining all the drugs.

"There were a lot of concerns at the time that the effects may not all add up," explains Julia Hippisley-Cox at the University of Nottingham, UK, who led the new study. "This is the first large-scale study we know of looking in a very large population at the effects of different combinations."

The study, which examined over 13,000 UK patients with ischaemic heart disease found that the effects of certain drugs did indeed add up. The best combination - statins, aspirin and beta-blockers - cut deaths by 83%.

Health care experts writing an editorial accompanying the research paper in the British Medical Journal say it "provides support for the synergic action of the polypill".

Real life

The team followed patients over seven years using records kept on a general practice database called QRESEARCH, which included over one million patients across the UK.

Hippisley-Cox and colleague Carol Coupland found the best combination was statins, aspirin and beta-blockers. But adding a type of high blood pressure medication called an ACE inhibitor to this trio actually reduced effectiveness.

The smallest reductions in deaths were seen when only one drug was used. For example, giving a heart patient either beta-blockers or an ACE inhibitor alone reduced deaths by about 20%.

Hippisley-Cox notes the results of the observational study are more at risk of bias than those gained in randomised trials. But she adds this "is a real life sort of study" which shows how drugs work in the general population.

The pair also warn they have not investigated the effects of combination therapy in patients without heart disease. "Our results should therefore not be taken as evidence that the combination of treatments suggested in 2003 should be prescribed to all patients over 55."


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