



More than half of strokes and heart attacks can be abolished in people with high blood pressure

Largest European study of high blood pressure published

Issued on behalf of the Executive Committee of the Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT)

Stockholm, Sweden, 4th September 2005 – Most strokes and heart attacks in people with high blood pressure can be abolished by simply combining effective, modern blood pressure lowering drugs with treatment to reduce cholesterol.

The success of this treatment strategy has been shown for the first time in the largest study of high blood pressure treatment ever conducted in Europe – the Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT) – which was presented at the congress of the European Society of Cardiology today and is published online in *The Lancet*.

ASCOT included more than 19,000 men and women with high blood pressure who were at a moderate risk of strokes and heart attacks. To control their blood pressure, they received either the newer drugs – a calcium antagonist, amlodipine and the ACE inhibitor, perindopril – or a traditional combination of a beta-blocker, atenolol and a diuretic. Additionally, 10,000 patients were also treated with the cholesterol lowering drug atorvastatin or a placebo (dummy pill). This is the only major European study to-date to combine these two treatment strategies.

Co-Chairman of the ASCOT Steering Committee, Professor Peter Sever, Professor of Clinical Pharmacology and Therapeutics, Imperial College London, International Centre for Circulatory Health, London, UK, said: “The patients treated in ASCOT were those generally seen in everyday practice. They had high blood pressure plus three additional risk factors, e.g. aged over 55, male gender, smoker. They were seen as being at moderate risk. Compared with patients receiving standard blood pressure lowering therapy of a beta-blocker and diuretic, the combination of the contemporary blood pressure lowering drugs, amlodipine and perindopril, plus effective lowering of cholesterol abolished about half the risk of strokes and heart attacks – the most important causes of death in millions of men and women with high blood pressure.”

The final results of ASCOT, which was conducted in the UK, Ireland and the Nordic countries, showed that the combination of newer blood pressure lowering drugs reduced the risk of strokes by about 25%, coronaries by 15%, cardiovascular deaths by 25% and new cases of diabetes by 30% compared with the standard treatment.

The addition of the cholesterol lowering drug, atorvastatin, still further reduced the remaining risk irrespective of the patient’s original cholesterol level. Indeed, the ASCOT patients only had average or below average levels of cholesterol at the outset of the study.

As a result of the reductions in heart attacks and strokes in patients receiving the cholesterol lowering drug and those treated with the modern blood pressure lowering drugs, both parts of ASCOT were terminated early by the independent Data Safety Monitoring Board.

Commenting on the importance of these results, Co-Chairman of the study, Professor Björn Dahlöf, Associate Professor in the Department of Medicine at Sahlgrenska University Hospital/Östra, University of Gothenburg, Sweden, said: “High blood pressure is a major public health problem. Despite the availability of effective blood pressure lowering drugs, many people who are being treated still suffer strokes, heart attacks and other related diseases, such as diabetes. Now, the evidence from ASCOT offers us a simple and effective combination of treatments which both control the blood pressure and lower cholesterol to more effectively reduce this risk. This is very important news for patients and their physicians.”

Following the study, the investigators believe that international recommendations for managing high blood pressure may need to be reviewed. Additionally, they suggest that most patients with hypertension should also be considered for a cholesterol lowering drug.

However, they emphasise that patients taking beta-blockers and diuretics should not discontinue their treatment. The Co-Chairmen of the study, Professors Sever and Dahlöf concluded: “Diuretics and beta-blockers are an effective and proven combination for lowering blood pressure and its associated risks. What ASCOT has shown is that for many patients the combination of newer drugs may be an even better option. Patients should discuss the implications of ASCOT with their physicians before any modification of treatment is considered.”

Note to editors

More than 330 million adults in Europe and North America suffer from high blood pressure which also affects a further 639 million men and women in the rest of the world (*The Lancet*, January 2005).

About 80% of people with high blood pressure have additional uncontrolled cardiovascular risks (World Health Organization).

The final results of the Blood Pressure Lowering Arm (BPLA) of ASCOT were published in *The Lancet* online (www.thelancet.com) on 4th September 2005:

Prevention of cardiovascular events with an antihypertensive regimen of amlodipine adding perindopril as required versus atenolol adding bendroflumethiazide as required, in the Anglo-Scandinavian Cardiac Outcomes Trial-Blood Pressure Lowering Arm (ASCOT-BPLA): a multicentre randomised controlled trial

Björn Dahlöf, Peter S Sever, Neil R Poulter, Hans Wedel, D Gareth Beevers, Mark Caulfield, Rory Collins, Sverre E Kjeldsen, Arni Kristinsson, Gordon T McInnes, Jesper Mehlsen, Markku Nieminen, Eoin O'Brien, Jan Östergren, for the ASCOT investigators

Lancet 2005, Volume 366, DOI:10.1016/S0140-6736(05) - 67185-1

Explanations for the benefits seen are reviewed in a separate paper also published in *The Lancet* online (www.thelancet.com) on 4th September 2005:

Role of blood pressure and other variables in the differential cardiovascular event rates noted in the Anglo-Scandinavian Cardiac Outcomes Trial-Blood Pressure Lowering Arm (ASCOT-BPLA)

Neil R Poulter, Hans Wedel, Björn Dahlöf, Peter S Sever, D Gareth Beevers, Mark Caulfield, Sverre E Kjeldsen, Arni Kristinnsson, Gordon T McInnes, Jesper Mehlsen, Markku Nieminen, Eoin O'Brien, Jan Östergren, Stuart Pocock, for the ASCOT investigators

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