

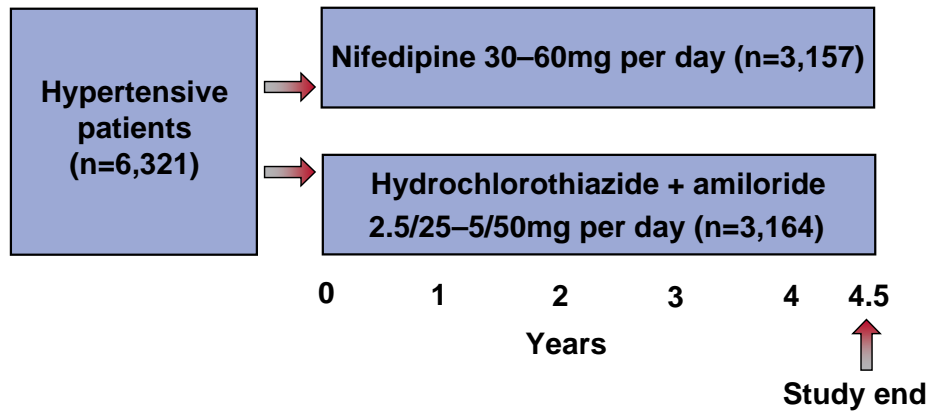
INSIGHT

International Nifedipine GITS Study – Intervention as a Goal in Hypertension Treatment

GITS: gastrointestinal therapeutic system

The International Nifedipine GITS [gastrointestinal therapeutic system] Study – Intervention as a Goal in Hypertension Treatment (INSIGHT) was a prospective, randomised, double-blind trial comparing nifedipine and the diuretic combination of hydrochlorothiazide and amiloride. It was designed to compare the effectiveness of nifedipine with that of standard diuretic therapy in lowering blood pressure in hypertensive patients. In two side-arm studies, the effect of nifedipine on coronary calcification and progression of intima media thickness were also analysed.

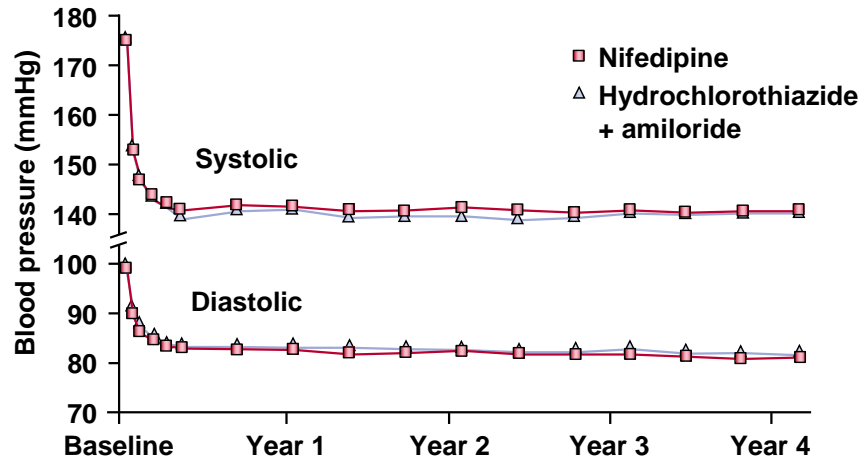
Study design



Brown M et al. Lancet 2000

The 6,321 hypertensive patients enrolled in the trial had additional risk factors for the development of cardiovascular disease (e.g. smoking, diabetes, hyperlipidaemia, family history of cardiovascular disease). The primary outcome was cardiovascular death, myocardial infarction, heart failure or stroke, and the follow-up was 4.5 years (Brown M et al. Lancet 2000).

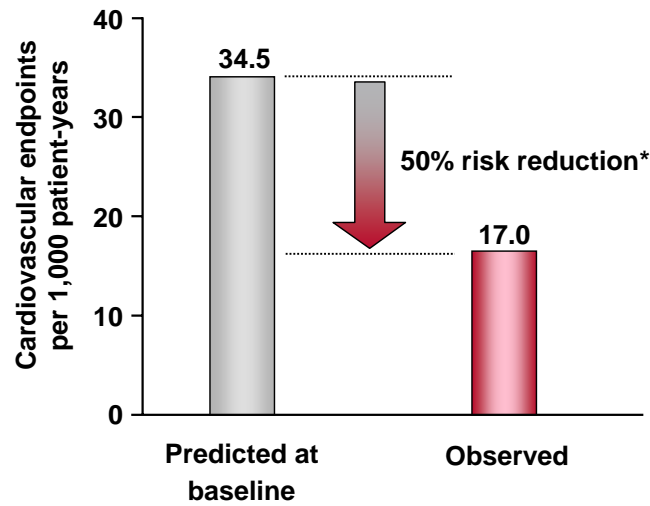
Nifedipine reduces blood pressure



Brown M et al. Lancet 2000

INSIGHT demonstrated that treatment with nifedipine reduces blood pressure efficiently and safely. Over the course of the trial, blood pressure control in patients receiving nifedipine was equivalent to that in those receiving the diuretic combination.

Nifedipine reduces cardiovascular risk

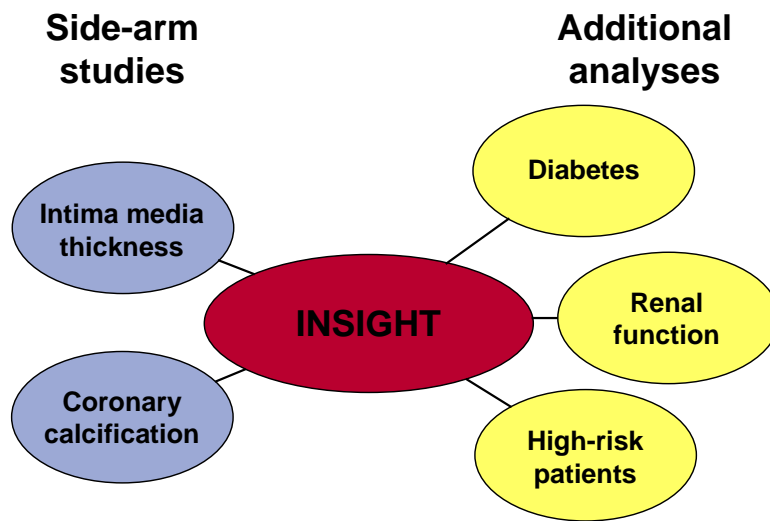


*Estimated from Framingham data

Brown M et al. Lancet 2000

INSIGHT demonstrated that effective blood pressure control can significantly reduce the level of cardiovascular risk. Using the Framingham data, the observed rate of events was approximately 50% of the predicted rate.

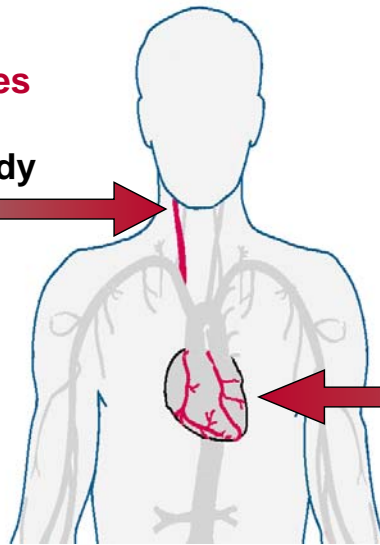
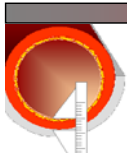
Side-arm studies and additional analyses



From INSIGHT, two side-arm studies (for intima media thickness and coronary calcification) and a sub-analysis (for renal function) showed that nifedipine had a beneficial effect on the vasculature beyond its blood pressure lowering results.

Side-arm studies

Carotid arteries
Intima media
thickness study



Coronary arteries
Coronary
calcification study



Conclusions

- **Nifedipine is as effective as a diuretic combination for reducing blood pressure and cardiovascular risk**
- **Nifedipine slows disease progression**
 - **preserves renal function**
 - **prevents the development of diabetes**
- **Nifedipine prevents atherosclerotic vessel damage**
 - **reduces coronary calcification**
 - **blocks intima media thickness progression**

INSIGHT demonstrated that nifedipine is an effective antihypertensive agent that slows vascular damage. This, in turn, delays organ deterioration.