SUMMARY

The endothelium of blood vessels is known to secrete nitric oxide which diffuses on to the underlying media bringing about relaxation of the blood vessel. As a healthy endothelium is obligatory for this phenomenon, it is called endothelium-dependent relaxation (EDR). It has been shown that EDR is impaired in hypercholesterolaemia and atherosclerosis. In the experiments described here an attempt was made to investigate the effect of vascular disease on EDR in human blood vessels. Experiments using rabbit aortae confirmed the presence of EDR to acetylcholine under the present experimental conditions. Ten experiments were performed using human blood vessels. Two of them showed contraction to noradrenaline. No EDR was seen with acetylcholine. The other eight vessels did not respond to noradrenaline or prostaglandin F2 alpha. Scarcity of sufficiently large in vitro specimens of human blood vessels hindered the experiments. The results of these few experiments are insufficient to draw any conclusions.