Should beta blockers remain first choice in the treatment of primary hypertension ?

A meta-anlaysis was conducted of clinical trials after a Cochrane library and PubMed search for β blocker treatment for primary hypertension. Data of 13 randomised controlled clinical trials (n =105 951 patients) were included comparing β blockers with other antihypertensive drugs. Seven studies (n = 27 433 patients) were included in a comparison of beta-blockers and placebo or no treatment.

The relative risk of stroke was 16% higher for β blockers than for other drugs. When the effect of β blockers was compared with that of placebo or no treatment the relative risk of stroke was reduced by 19% for all β blockers, about half that is expected from previous hypertension trials. There was no difference for myocardial infarction or mortality.

The authors conclude that in comparison with other antihypertensive drugs, the effect of β blockers is less than optimum carrying a raised risk of stroke. Hence the authors suggest that β blockers should not remain first choice in the treatment of primary hypertension and should not be used as a reference drug in future randomised controlled clinical trials. *Lancet* 2005; **366**: 1545-60.

Beta blockers no longer preferred as initial therapy for hypertension

Following publication of the study referred to above and further evidence, such as ASCOT-BPLA, (*Lancet* 2005, **366**: 895-906) the National Institute of Clinical Excellence (NICE) in the UK has issued guidance in 2006, which states that β blockers are no longer preferred as routine initial therapy for hypertension. Furthermore, β blockers (especially if combined with a thiazide diuretic) are best avoided if there is a concern about diabetes.

Consequently, the latest British National Formulary has clarified the role of β blockers for hypertension and advises that other antihypertensive drugs are more effective than β blockers for reducing the incidence of stroke, myocardial infarction and cardiovascular mortality in patients with hypertension but points out that beta-blockers have beneficial effects in angina and in the management of a patient who has suffered a myocardial infarction. They are also of benefit in heart failure.

British National Formulary; 2006; 52. BMJ Publishing Group Ltd and Royal Pharmaceutical Society Publishing, London, UK.

Vitamin C and vitamin E in pregnant women at risk for eclampsia (VIP trial)

Oxidative stress could play a role in pre-eclampsia and a randomised controlled clinical trial was done to ascertain whether vitamin C and vitamin E supplements reduce the risk of eclampsia. This study assigned women to 1000mg vitamin C and 400IU vitamin E or matched placebo daily from the second trimester of pregnancy until delivery. Primary end-points were pre-eclampsia, low birth weight or small size for gestational age. The incidence of pre-eclamsia was similar in treatment and placebo groups. More low birth weight babies were born to women who took antioxidants compared to controls.

The authors conclude that concomitant supplementation with vitamin C and vitamin E does not prevent pre-eclampsia in women at risk but does increase the rate of babies born with low birth weight. Therefore the use of these antioxidants is not justified in pregnancy. *Lancet* 2006; **367**: 1145-54.

The public should be informed of the lack of efficacy and possible harms of vitamin C and vitamin E in pregnancy.

Wound management in dog bite

Wound management and the use of antimicrobials in preventing infection are important in managing dog bites. This approach is however based largely on consensus rather than firm evidence from clinical trials. Primary wound closure should be avoided in limb injuries because of increased risk of infection. Infected wounds presenting within 12 hours of injury are usually due to *Pasteurella multocida*. For patients considered to be at high risk of infection, the prophylaxis of choice is co-amoxiclav. Erythromycin or flucloxacillin should never be used alone prophylactically as *Pasteurella* infection is usually resistant. Patients at high risk of infection are immunosuppressed patients, those with asplenia or cirrhosis or those who have had surgery for a carcinoma. *British Medical Journal* 2007; **334**: 413-7.

In addition to the risk of rabies that takes prominence in managing patients after dog bites in Sri Lanka, wound management and the risk of secondary infection are also important considerations.

Learning professionalism

Much learning of professionalism takes place outside the domain of formal curriculum, and such learning involves indoctrination in the unwritten rules of student-hood and medical practice. Some medical schools and residency programmes have acknowledged the existence of alternative or shadow domains of learning whose lessons are sometimes collectively called the 'hidden curriculum'. They have accepted responsibility for both understanding and modulating the effect of these domains on student knowledge, skills and values. Included in this wider curriculum are the lessons students learn as they witness conflicts between the ideals taught and stated in professional codes, and the behaviour of individual physicians, particularly of faculty members and in organisations. Personal reflection remains a core element in all definitions of professionalism. Medicine is a moral community, the practice of medicine a moral undertaking, and professionalism a moral commitment. These fundamental truths should be kept in mind in designing learning environments for students. *New England Journal of Medicine* 2006; **355**: 2151-2.

Investigating urinary tract infection in children

Correct diagnosis of urinary tract infection (UTI) and prompt treatment of symptomatic infection is more important than the subsequent investigation strategy. The use of invasive investigations involving ionising radiation (eg. micturating cysto-urethrograms) should be limited to instances where information obtained is necessary to guide therapy. Children at high risk of pyelonephritic scarring, or major underlying urinary tract abnormalities need to be identified for further assessment. They are likely to be under 2 years, or have had severe pyelonephritis, septicaemia, recurrent UTI or positive findings in history and examination. Seemingly healthy older children with a negative medical history and examination who have a solitary minor or asymptomatic infection which has responded to treatment do not require investigation. They are far less likely to have significant underlying disorders and the few who may have will be identified when they present again with further infections. *Current Paediatrics* 2006; **16**: 248-53.

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