

TOP Journal Club

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Cost effectiveness of cilostazol compared with naftidrofuryl and pentoxifylline in the treatment of intermittent claudication in the UK.

Curr Med Res Opin. 2005 Jun;21(6):817-26.

OBJECTIVE: To estimate the cost effectiveness of cilostazol (Pletal) compared to naftidrofuryl and pentoxifylline (Trental) in the treatment of intermittent claudication in the UK. **DESIGN AND SETTING:** This was a modelling study on the management of patients with intermittent claudication who are 40 years of age or above and have at least six months history of symptomatic intermittent claudication, secondary to lower extremity arterial occlusive disease. The study was performed from the perspective of the UK's National Health Service (NHS). **METHODS:** Clinical outcomes attributable to managing intermittent claudication were obtained from the published literature and resource utilisation estimates were derived from a panel of vascular surgeons. Using decision analytical techniques, a decision model was constructed depicting the management of intermittent claudication with cilostazol, naftidrofuryl and pentoxifylline over 24 weeks in the UK. The model was used to estimate the cost effectiveness (at 2002/2003 prices) of cilostazol relative to the other treatments. **Main outcome measures and results:** Starting treatment with cilostazol instead of naftidrofuryl is expected to increase the percentage improvement in maximal walking distance by 32% (from 57% to 75%) for a 12% increase in NHS costs (from pound801 to pound895). Treatment with cilostazol instead of pentoxifylline is expected to increase the percentage improvement in maximal walking distance by 67% (from 45% to 75%) and reduce NHS costs by 2% (from pound917 to pound895).

Treatment with naftidrofuryl instead of pentoxifylline is expected to increase the percentage improvement in maximal walking distance by 27% (from 45% to 57%) and decrease NHS costs by 14% (from pound917 to pound801). **CONCLUSION:** Within the limitations of our model, starting treatment with cilostazol is expected to be a clinically more effective strategy for improving maximal walking distance at 24 weeks than starting treatment with naftidrofuryl or pentoxifylline and potentially the most cost effective strategy. Moreover, the acquisition cost of a drug should not be used as an indication of the cost effectiveness of a given method of care.

Randomized Comparison of Cilostazol vs Ticlopidine for Antiplatelet Therapy After Coronary Stenting.

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Background Cilostazol and ticlopidine are commonly prescribed for prevention of thrombosis after coronary stenting, but few studies have compared them. **Methods and Results** In the present study 642 patients who underwent stenting were randomized to treatment either with cilostazol + aspirin (C group, 321 patients) or ticlopidine + aspirin (T group, 321 patients). Quantitative coronary angiography (QCA) was performed immediately after stenting and at the 6-month follow-up. Treatment was continued until follow-up angiography. Baseline patient characteristics did not differ significantly. With the exception of a higher rate of stenting in a venous graft in the C group, there were no differences in angiographic characteristics or stent type. Baseline QCA analysis of the reference diameter, minimal lumen diameter (MLD) showed no significant differences. Follow-up QCA analysis of the MLD showed no significant differences. There were also no differences in restenosis or target lesion revascularization rates, or in the incidence of

adverse reactions. However, the rate of subacute thrombosis (SAT) was significantly higher in the C group than in the T group (2% vs 0.3%, $p=0.02$). Conclusion In the present study there was a similar restenosis rate with cilostazol or ticlopidine, but the rate of SAT was significantly higher with cilostazol. There was no significant difference in adverse reactions.

Rebamipide inhibits gastric cancer growth by targeting survivin and Aurora-B.

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Rebamipide accelerates healing of gastric ulcers and gastritis but its actions on gastric cancer are not known. Survivin, an anti-apoptosis protein, is overexpressed in stem, progenitor, and cancer cells. In gastric cancer, increased and sustained survivin expression provides survival advantage and facilitates tumor progression and resistance to anti-cancer drugs. Aurora-B kinase is essential for chromosome alignment and mitosis progression but surprisingly its role in gastric cancer has not been explored. We examined in human gastric cancer AGS cells: (1) survivin expression, (2) localization of survivin and Aurora-B, (3) cell proliferation, and (4) effects of specific survivin siRNA and/or rebamipide (free radical scavenging drug) on survivin and Aurora-B expression and cell proliferation. Survivin and Aurora-B are strongly expressed in human AGS gastric cancer cells and co-localize during mitosis. Survivin siRNA significantly reduces AGS cell viability. Rebamipide significantly downregulates in AGS cell survivin expression, its association with Aurora-B and cell proliferation. Rebamipide-induced downregulation of survivin is at the transcription level and does not involve ubiquitin-proteasome pathway.

Daily Supplementation with (n-3) PUFAs, Oleic Acid, Folic Acid, and Vitamins B-6 and E Increases Pain-Free Walking Distance and Improves Risk Factors in Men with Peripheral Vascular Disease.

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A number of nutrients are known to be effective in preventing cardiovascular disease (CVD). We investigated the possible effects of a daily intake of low amounts of these nutrients on risk factors and clinical parameters in patients with peripheral vascular disease and intermittent claudication (PVD-IC). Male PVD-IC patients ($n = 60$) were randomly allocated into 2 groups. The supplement (S) group consumed 500 mL/d of a fortified dairy product containing eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA), oleic acid, folic acid, and vitamins A, B-6, D, and E. The control (C) group consumed 500 mL/d of semi-skimmed milk with added vitamins A and D. The patients received lifestyle and dietary recommendations, and they were instructed to consume the products in addition to their regular diet. Blood extractions and clinical explorations were performed after 0, 3, 6, 9, and 12 mo. Plasma concentrations of EPA, DHA, oleic acid, folic acid, and vitamins B-6 and E increased after treatment with supplements ($P < 0.05$). Plasma total cholesterol and ApoB concentrations decreased in the S group, and total homocysteine decreased in those patients with high initial concentrations. Walking distance before the onset of claudication increased in the S group ($P < 0.001$), and ankle-brachial pressure index values increased ($P < 0.05$). The inclusion in the everyday diet of certain nutrients known to promote cardiovascular health improved clinical outcomes while reducing a variety of risk factors in men with PVD-IC, providing new evidence of the potential role of nutrition in the reduction of PVD-IC symptoms.

<http://www.thai-otsuka.co.th/pxnews/index.html>
Opinions and suggestions are welcomed
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