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Plastic biliary stents: scratching the surface? ►

▲ Tringali A, Mutignani M, Perri V, *et al*. A prospective, randomised multicenter trial comparing DoubleLayer and polyethylene stents form malignant distal common bile duct strictures. *Endoscopy* 2003;**35**:992–7.

Plastic stents remain the mainstay of endoscopic palliation of malignant obstructive jaundice but are prone to clogging with recurrence of obstruction. Strategies to prolong stent patency have been disappointing but the latest is the development of ''DoubleLayer'' stents, the inner lining of which contains perfluoro alkoxyl, a material similar to Teflon, along with middle mesh and outer polyamide layers. The authors, from four European centres, prospectively randomised 120 patients with inoperable malignant distal common bile duct strictures to first stenting with either the DoubleLayer stents (DLS) or standard polyethylene stents (PE). The end points were patency, occlusion or malfunction, and death. The 60 patients in each group were comparable, and at follow up 26 (43%) of the DLS patients developed clogging at a mean of 144 (11) days compared with 38 PE patients (63%) who developed clogging at 99 (9) days ($p<0.05$). Forty seven per cent of patients with DLS stents died without stent occlusion compared with 29% in the PE group ($p<0.05$), and Kaplan-Meier analysis indicated longer patency with DLS stents. These results seem good but stent patency rates in this study are not great compared with results of standard plastic stents in other trials, and perhaps the significant advantages of DLS stents are more apparent than real, reflecting the short duration of patency in the PE group. Furthermore, DLS stents lack side holes, unlike PE stents, and perhaps this was a factor in their superiority rather than the materials used in construction?

Cost and QALY of transplantation for alcoholic liver disease ►

▲ Langworth L, Young T, Buxton MJ, *et al*, on behalf of the CELT Project Team. Midterm cost-effectiveness of the liver transplantation program of England and Wales for three disease groups. *Liver Transpl* 2003;**9**:1295–307.

Liver transplantation has never been the subject of a randomised controlled trial and its cost benefit has been hotly debated, especially in alcoholic liver disease (ALD). Langworth *et al* have performed a cost utility analysis of adult liver transplantation for primary biliary cirrhosis (PBC), primary sclerosing cholangitis (PSC), and ALD. Economic evaluation was performed using patients listed for transplantation and followed over 27 months, compared with the shadow costs and health benefits of a group representing the experience without transplantation (derived from a combination of data from those awaiting transplantation and published prognostic models for each disease). Liver transplantation increased the survival and health related quality of life in all three groups. The mean incremental cost per quality adjusted life year (QALY) was £29 000 for PBC, £21 000 for PSC, and £48 000 for ALD. A value of £30 000 has been considered the benchmark for NHS spending to obtain an additional QALY. Using this comparison, cost utility estimates were poorer for patients with ALD over the 27 month period. The main reason for the higher cost per QALY for ALD compared with PBC and PSC was the cost of assessing a larger proportion of patients who were then considered unsuitable for transplantation. Better preliminary evaluation of patients with ALD before formal assessment would reduce the cost per QALY in this group. Cost per QALY might also be lower if a longer time frame (>27 months of follow up) was taken into consideration.

The only good *Helicobacter* is a dead one? ►

▲ Wong BC-Y, Lam SK, Wong WM, *et al*. Helicobacter pylori eradication to prevent gastric cancer in a high-risk region of China. *JAMA* 2004;**291**:187–94.

Helicobacter pylori is a strong risk factor for gastric cancer. However, there have been no randomised controlled trials evaluating whether population *H pylori* screening and treatment reduces the risk of gastric cancer. Wong *et al* investigated 1630 healthy *H pylori* positive subjects who were randomised to eradication therapy or placebo after baseline endoscopy. Subjects were followed up for a mean of 7.5 years, with 11 patients in the placebo group developing gastric cancer compared with seven in the eradication group ($p=0.33$). In the subgroup without pre-cancerous gastric lesions, six of the placebo group developed gastric cancer compared with none of those allocated to eradication therapy ($p=0.02$). These are the first randomised controlled trial data to suggest that *H pylori* eradication may prevent gastric cancer provided there are no precancerous lesions, such as gastric atrophy, dysplasia, or intestinal metaplasia. The results should be interpreted with caution as evaluation of those without precancerous lesions was a post hoc analysis. Also, the numbers of cancers were very small as the authors were optimistic with their power calculations. *H pylori* positive patients were also aware of their treatment status. Nevertheless, this is an excellent study and longer follow up of this group may yet provide conclusive data for those that believe the only good *Helicobacter* is a dead one.

Pass the salt please ►

▲ Murphy N, Auzinger G, Bernel W, *et al*. The effect of hypertonic sodium chloride on intracranial pressure in patients with acute liver failure. *Hepatology* 2004;**39**:464–70.

Metabolism of ammonia to urea is impaired in liver failure with an increasing load transferred to alternative sites such as the brain. Ammonia combines with glutamate within astrocytes to produce glutamine, an osmolyte. Water diffuses across the blood-brain barrier leading to astrocyte swelling. Intracranial hypertension is the leading cause of morbidity and mortality in patients with acute liver failure. Mannitol, commonly used to treat intracranial hypertension, has several disadvantages, including producing a rebound rise in intracranial pressure (ICP). In a randomised controlled trial involving 30 patients with acute hepatic failure and grade III or IV encephalopathy, Murphy *et al* investigated the use of a 30% hypertonic saline infusion (5–20 ml/h to maintain serum sodium levels at 145–155 mmol/l) in management compared with standard care. Over the first 24 hour period of the study, ICP decreased significantly relative to baseline in the treatment group. The incidence of intracranial hypertension (ICP $\geqslant$25 mm Hg) was higher in the control group with increasing requirement for norepinephrine. These results promise a way forward in the management of intracranial hypertension secondary to acute liver failure. However, data were collected for only 72 hours in this study and eventually seven patients in the control group and eight in the treatment group died. One looks forward to larger studies with a greater emphasis on clinical outcome as well as the possible adverse effects of hypertonic saline infusion in patients with acute liver failure.