
border of the open end of the cylinder is padded with sponge. About 700 mL of disinfectant can completely fill the container.

A wooden bar of 150 cm length is fixed to a flat rectangular wooden base of 40 cm x 25 cm. Two other square wooden boards 10 cm x 10 cm in size, with central hole of 4 cm diameter, are fixed at 30 cm and 60 cm from the base of the stand perpendicular to the bar. The top flat rectangular wooden board, 25 cm x 10 cm in size, with a cut slit of 5 cm x 5 cm on either side, is fixed perpendicular to the top of the long bar. It allows the endoscope top and its umbilical cord to rest comfortably (Fig). The wooden board top is padded with soft sponge to avoid damage to the endoscope. The wood is covered with water-resistant sheet to avoid damage to the container stand by water.

A flexible transparent medical-grade PVC tube of 250 cm length and 1.7 cm diameter is fixed in a ‘U’ shaped manner on the back of the long bar of the disinfectant stand 25 cm below the top, with the help of clips. Two hooks are applied 3.5 cm below the top on the long bar to hang the accessories when being dipped in the disinfectant container. The container requires 200 mL of the disinfectant to fill it. Both containers are fixed over the endoscope stand (Fig).

It costs Rs 1000/- to prepare these low-volume disinfectant containers and the stand. The disinfectant glutaraldehyde is available in 1000-mL commercial packs. The 100 mL left after filling the two containers (700 mL + 200 mL) can be used to replace losses of the disinfectant during removal of the endoscope and accessories.

Over the past 9 months we have been using these disinfectant containers with ease and effectively for disinfection of endoscopes and accessories.

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Is Helicobacter pylori eradication useful in non-ulcer dyspepsia?

The role of H. pylori eradication in non-ulcer dyspepsia (NUD) is controversial. We report our results in patients with NUD diagnosed as per standard criteria.

This study was done prospectively over a three-year period (January 1998 to December 2000). One hundred consecutive patients with NUD who were positive for H. pylori by the urease test were studied. All patients had upper GI endoscopy done to exclude gastroesophageal reflux disease or peptic ulcer, ultrasonography to exclude biliary tract disease and stool examination for parasites. They were treated with anti-H. pylori regimen comprising omeprazole 20 mg bid, clarithromycin 500 mg bid, and amoxicillin 500 mg qid for 10 days or omeprazole 20 mg bid, metronidazole 400 mg tid and amoxicillin 500 mg qid for 10 days. The choice of regimen was left to individual clinicians. Repeat endoscopy was done 6 weeks, 3 months and 6 months after completion of therapy. At each visit, four mucosal biopsies were taken from the antrum within 2 cm of the pylorus, two for the urease test and two for histology by Giemsa stain. Patients who were both urease- and histology-negative were classified as having eradicated the organism.

Symptomatic improvement was rated on a scale of 1 to 5. A score of 1 indicated no change or worsening of symptoms and a score of 5, complete symptomatic relief. For purpose of this study scores of 4 and 5 were considered good response.

Table: Good response in patients according to H. pylori status

<table>
<thead>
<tr>
<th>Follow-up period</th>
<th>Eradicated No. (%)</th>
<th>Non-eradicated No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 weeks</td>
<td>46/75 (61)</td>
<td>12/25 (48)</td>
</tr>
<tr>
<td>3 months</td>
<td>28/64 (44)</td>
<td>4/36 (11)</td>
</tr>
<tr>
<td>6 months</td>
<td>11/34 (32)</td>
<td>12/66 (18)</td>
</tr>
</tbody>
</table>

Although at each interval of follow-up there was a greater proportion of “good” functional response in patients who had eradicated the organism, this reached statistical significance only at the 3-month visit (p<0.0008; χ² test). This may suggest that eradication of H. pylori may not be useful in the long term in the management of patients with NUD. However, a larger number of patients followed up over a longer period may be needed to confirm this.
Helicobacter pylori eradication after duodenal ulcer perforation

Eradication of Helicobacter pylori is indicated when patients infected with the organism have peptic ulcer or its complications. A single, definitive treatment regimen for H. pylori eradication has not yet been determined due to issues of efficacy, side effects, cost, and patient compliance. Many recent studies have tested a one-week triple-drug therapy regimen and have found it to be efficacious. European studies demonstrate successful eradication levels between 84% and 96% with this therapy. This therapy has not been tested in patients with complicated diseases such as ulcer perforation. We compared the efficacy of two different H. pylori eradication regimens in patients with perforated duodenal ulcer treated with primary closure.

The study protocol was approved by the institution’s ethics committee, and all patients gave informed written consent. Fifty-three patients with duodenal ulcer perforation were operated on with simple closure. Forty of them had positive 13-C urea breath test for H. pylori, and were randomized into two groups. One group (n=20) were instructed to use twice-daily clarithromycin 500 mg and amoxicillin 1 g for seven days and omeprazole for 28 days. The second group (n=20) was treated with these antibiotics for fourteen days and omeprazole for 28 days. Six weeks after treatment had ended, follow-up breath tests were performed to assess eradication. Success was achieved in 6 patients (30%) in the first group, and 13 (65%) in the second group (p=0.027).

We cannot explain the low eradication rates in our study, but this might be because of the ineffectiveness of these antibiotics, due to their widespread and unnecessary use in our country.

In conclusion, although 2-week therapy with amoxicillin and clarithromycin is more effective than one-week drug therapy, both regimens are not acceptable for patients with perforated duodenal ulcer treated with primary closure, because of low eradication rates.

References


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Hepatitis B leading to hepatocellular carcinoma: calculating the risk

There is a conceptual error in the cost analysis used by the Indian Association for Study of the Liver (INASOL) in their consensus statement. They quote the data of Dhir and Mohandas, which suggest that the actual incidence of hepatocellular carcinoma (HCC) due to hepatitis B virus (HBV) is only 4935 every year. In their cost analysis they use innovative mathematics to arrive at the figure of 5000 cases of HCC prevented by vaccination each year. They take the total number of births at 27 million, with a carrier rate of 4%. This works out to 1.08 million potential HBV-positive babies born to carrier mothers, who can be protected by vaccination. They have multiplied this 1.08 million by 0.46%, which is the figure they have used to calculate the incidence of HCC in HBV carrier babies, and arrived at the figure of 5000 HCC prevented by vaccination.

This figure of 5000 HCC prevented is true only for the first year of the program. In the next year, at 0.46% HCC per year, another 5000 of this first year’s cohort will be saved besides 5000 from the newborn cohort who are vaccinated that year. Thus, 10,000 cases of HCC will be prevented in the second year. In the year 2060, assuming life expectancy is still 60 years and as-