THE LONG-TERM RE-INFECTION RATE AFTER H.PYLORI ERADICATION IN BANGLADESHI ADULTS

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Background and aim

- Role of H pylori in the pathogenesis of PUD, Gestric Ca & B-cell MALTOMA is well established.
- Ulcer recurrence ranges from 60-100%/yr treated with conventional therapy.
- H pylori eradication results faster healing & markedly decreased risk of ulcer recurrence.

Background and aim

- Systematic eradication of H pylori as a standard regimen for PUD has been recommended.
- High prevalence of infection, overcrowding & poor sanitary condition result in higher risk of recurrence after cure in the developing countries.
- At present only a few short term follow up studies are available to confirm or refute this assertion.

Background and aim

- Bangladesh, a developing county where a high point prevalence of DU & H pylori infection have been reported.
- Earlier study performed (2 years follow up) by our group, reported a high re-infection rate(18% per year) after successful eradication (Hildebrand et al 2001)
- However, long term follow up studies are so far not available from developing countries.
- Therefore, we are interested to investigate the long-term re-infection rate with H pylori at the end of 6 years following successful eradication.

Patients and Methods

- Initially a 2 years follow up study was designed.
- No. Patients included-105.
- H pylori eradication therapies:

Groups	Eradication rates
A- CBS, Furazolidone, Amoxyciline	100%
B- Omeprazole, Furazolidone, Amoxyciline	96%
C-Ranitidine, Furazolidone, Amoxyciline	85%
D- Omeprazole, Amoxyciline, Metro	81%
E- Omeprazole, Amoxyciline, Tinidazole	58%

- Overall eradication rates were 86% (90/105)
- After 2 years follow up, 17 of the 90 were re-infected :18% per year.
- No. remaining H pylori negative subjects were 73.
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Patients and Methods

- **Present follow up study: 72 months post treatment (6 years after eradication)**
- **Between 24 & 60 months most of the patients continued to report periodically to the clinic.**
- **6 patients were found H pylori positive during 24-60 months.**
- **7 patients did not seek medical attention (7 drop out)**
- **60 subject remained H pylori negative {73-(6+7=13)=60}**

Patients and Methods

- No. subjects (6 years after eradication) attempted for trace & follow up were 60.
- House to house visits were undertaken
- subject were interviewed
- ^{13}C UBT was performed to document H pylori status.
- Endoscopy was done in symptomatic subjects.

Results

- Subjects targetted for follow-up =60
- 41 came to follow-up clinic.
- 1 female & remaining were male, mean age-42.3 years, R-26 to 66 years.
- 19 could not be traced (lost to follow-up)
- 16 of 41 were found H pylori positive (39%).

Results

Symptoms, H pylori & ulcer status (N=41)

- 23 had reappearance of symptoms
- H pylori infection in 10 (43%)
- Ulcer recurrence in 6 (26%)

Results

- **Relationship between DU recurrence and H pylori status.**

Follow-up Periods	No. (%) with DU^+		Total DU^+ N (%)
	Re-infection With Hp	Hp negative	
Between 3 & 24 months (n=90) Hildebrand et al 2001	6/17 (35%)	4/73(5.5 %)*	10/90 (11 %)
At 72 months (6 years) (n =41)	5/16 (31%)	1/25 (4%)*	6/41 (15 %)

Discussion

- Variable recurrence rates of H pylori infection have been reported from developing countries.
- Higher re-infection rate in India (up to 40 %), Brazil (7.6%), & Vietnam (23.5%).
- Low recurrence reported from China (1.1%) & Chile (4.2%).
- Re-infection rates appear to be high in most of the developing countries, ulcer recurrence have been reported to be low in re-infected patients.
- In our study 6 years ulcer recurrence rate was 15 % in patients with very high re-infection rate (39%).

Conclusion

- High H pylori re-infection rate is suggestive of higher acquisition rate of infection in this highly prevalent setting.

- Despite the presence of higher H pylori re-infection rates, DU relapse rate after cure of infection was comparatively lower.

Recommendations

- If the long term ulcer recurrence is lower in patients who have recurrence of infection after eradication therapy than the natural recurrence rate or recurrence rates after conventional therapy, it may still be justifiable to give eradication treatment.

- Future study: Comparison of cost-effectiveness of eradication therapy Vs conventional therapy (which is underway).

Thank You.