

Carbon14 urea breath test: A cost-effective tool for evaluation of *Helicobacter pylori* eradication

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Abstract

AIM: To provide evidence that UBT is the most cost effective tool for evaluation of *H. pylori* eradication.

METHODS: Data on twenty six consecutive patients at Atlanta VA Hospital who underwent UBT were retrospectively reviewed. All patients had endoscopic diagnosis of peptic ulcers and biopsy proven *H. pylori* infection. Eight to ten weeks after completion of triple therapy (amoxicillin, biaxin and prilosec), all patients had C14 UBT (PY test kit, Charlottesville, Virginia). Ten patients had repeated endoscopic examinations and gastric biopsies. Twelve patients had serology tests for *H. pylori*.

RESULTS: UBT was negative in all patients (two patients had indeterminate result on the first time, but shown to be negative on the second UBT). Biopsies from all ten patients who were re endoscoped were negative for *H. pylori*. Serology tests on all the twelve patients were positive. Cure of *H. pylori* could not be determined on the titer change. All patients spent about 30 min in nuclear medicine laboratory, the endoscopic patients spent 2 h to 4 h in endoscopic laboratory; the cost for a UBT was about \$ 50, the cost for an endoscopy with biopsy was above \$ 200.

CONCLUSION: The C 14 UBT is a rapid, economic and accurate test to monitor *H. pylori* eradication. The test should be considered a gold standard test for evaluating the effectiveness of treatment of *H. pylori* infection, unless patients need repeated endoscopy to rule out gastric cancer.

Key words: *Helicobacter pylori*/pathogenicity; Peptic ulcer; Stomach neoplasms; Gastroscopy; Biopsy; Urea breath test

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