● LANSOPRAZOLE AND TRANEXAMIC ACID ALONE AND IN COMBINATION FOR UPPER GASTROINTESTINAL BLEEDING

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Introduction Since acid suppression and inhibition of fibrinolysis may improve outcome in established upper gastrointestinal bleeding; we tested whether lansoprazole (LAN) or tranexamic acid (TRAN), alone and in combination, reduced bleeding evident at endoscopy in unselected patients admitted because of a history of haematemesis or melaena.

Methods: 414 patients were randomised to treatment with lansoprazole (60mg then 30mg qds), tranexamic acid (1.5 g then 1 g qds) both drugs or placebo for up to 4 days. 228 patients met eligibility requirements and were considered to have had a definite upper GI bleed. Logistic regression analysis was used to identified significant determinants of finding blood in the stomach(vs none/trace) at endoscopy.

Results Endoscopy was at 19h (median, IQR 12-23) after admission. High risk patients (old, shocked or liver disease) were 3.04 times (95% CI 1.16-8.01, p=0.024) more likely to have blood than other patients. The odds ratio increased by 0.03 (0-0.06) for each year of age (p=0.021) and by 0.02 (95% CI 0-0.04) for each beat per minute of the initial pulse (p=0.070). Percentage of patients with blood in the stomach

	Placebo	LAN	TRAN	Both
% with blood	**35.2%** (19/54)	**15.5%**(9/58)	**19.3%**(11/57)	**19%**(11/58)
Odds ratio	**1**	**0.14**	**0.30**	**0.26**
95% CI	NA	(0.05-0.43)	(0.11-0.85)	(0.09-0.76
p vs placebo	NA	0.0006	0.024	0.014

Compared with 1, treatment with 5 or more doses reduced the probability of finding blood in the stomach (p=0.001, odds ratio 0.08(0.02-0.35)). No differences between groups was observed in deaths up to 30 days (4.3% (18/414) overall, 2.2%(5/228) in definite bleeds) or adverse events.

CONCLUSION: This study shows that acid inhibition with lansoprazole and inhibition of fibrinolysis by tranexamic acid can influence established upper GI bleeding but whether there is synergism with both treatments is less clear.

ROLE OF HELICOBACTER PYLORI IN CHRONIC GASTRITIS. R.Colin, A.Cortot, M.D.Diebold, S.Richardson, M.A.Bigard, Rouen CHU-France.

Helicobacter pylori is the main factor of chronic gastritis. We aimed at evaluating in a prospective study, the percentage of antral and fundic gastritis and the prevalence of Hp infection in a control group and in two groups of patients on long term treatment with antisecretory drugs for reflux oesophagitis.

Methods : Subjects with normal upper endoscopy were enrolled as control group (T,n=215, mean age=55,8 years). Reflux oesophagitis patients were treated for at least 6 months either by omeprazole (OME, n=201, mean age=58,1 years) or by anti H2 (AH2, n=118, mean age=57,7 years). Antral and fundic biopsies were performed in order to assess the presence of gastritis and of Hp infection.

Results :

Gastritis (%)		None	Not active	Active	Atrophic
Antrum	T	45	18	34	3
	AH2	56	19	25	1
	OME***	65	21	14	0
Fundus	T	51	16	38	5
	AH2	61	11	25	3
	OME*	67	13	18	1

*p<0.001 OME vs T ; **p<0.01 OME vs AH2.

Relation Hp/gastritis

	Gastritis +		Gastritis -	
%	Antrum	Fundus	Antrum	Fundus
Hp+	100	96	0	4
Hp-	73	76	27	24

Conclusion : In all cases, (n=534 evaluated subjects / patients) Hp infection is associated with gastritis. In about 25 % of cases, antral and / or fundus gastritis is not associated with Hp infection, and is due to other causes.

CHRONIC HEARTBURN JUSTIFIES ENDOSCOPY FOR DETECTING BARRETT'S METAPLASIA, DYSPLASIA, OR NEOPLASIA. J.M. Collard, R. Romagnoli, B. Hermans, J. Malaise, G. Lagneaux, J.B. Otte, P.J. Kestens. Departments of Digestive Surgery and Pathology, Louvain Medical School, Brussels, Belgium

Material and methods : Over 10 years, 52 patients were referred for subtotal or distal esophagectomy because having cancer (n = 46) or high grade dysplasia (HGD) (n = 6) arising in Barrett's. They were classified into 4 groups depending on the circumstances of diagnosis, i.e. group I (n = 27) : tumor related symptoms (dysphagia or bleeding); group II : regular (n = 3) or not regular (n = 1) endoscopic follow-up of a well-known metaplasia; group III (n = 12) : objective assessment of chronic heartburn; group IV (n = 9) : symptoms due to an unrelated condition (chance phenomenon). In all, 13 patients (25 %) (group I : n = 7; group II : n = 1; group IV : n = 5) never had any reflux symptom before detection of their HGD or tumor.

Results : Two of the 6 patients (33 %) operated on for HGD already had a real cancer (T1No) at postoperative pathologic examination, and one of 5 patients (20 %) whose HGD was followed up endoscopically until a real cancer was evidenced at one biopsy sample eventually had positive lymph nodes.

Esophageal resection was classified Ro in 47 patients and R2 in five (group I : n = 4; group III : n = 1). In-hospital mortality was zero. Five-year survival was 41.8 % for the whole series, 47.4 % after Ro resection, 77.5 % for the 21 patients with HGD or T1,T2No tumors vs 21.3 % for the 31 patients with T3No, any TN+ tumors (p = 0.0006).

	Group I	Group II	Group III	Group IV
Prevalence of HGD or T1,T2No tumors	7.4 %	50 %	75 %	88.9 %
5-year survival	24.6 %	50 %	53.5 %	85.7 %

Prevalence of HGD or T1,T2No tumors was significantly higher in combined groups II and III (68.7 %) than in those 20 group I patients with a long past history of heartburn (10 %) (p < 0.001) resulting in a 5-year survival of 53.2 % and 30.5 %, respectively.

Conclusions : (1) HGD evidenced at follow-up endoscopy already is a cancer in 33 % of the cases. (2) Waiting for neoplastic transformation of HGD before referring the patient to the surgeon, or not detecting metaplasia in patients with chronic heartburn, as well as not following up metaplasia by regular endoscopies expose to advanced tumors and R2 resections. (3) However, 25 % of the neoplasms arising in Barrett's are not suitable for endoscopic follow-up, and, unless a chance phenomenon, can only be detected when they become obstructive because of the absence of reflux symptoms.

● SAFETY AND REPRODUCIBILITY OF THE 14C-UREA BREATH TEST.

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AIMS: 1) to determine the excretion of the ^{14}C and its associated radiation dose of a capsule-based ^{14}C-urea breath test and 2) examine the reproducibility of the test. METHODS: Tests were performed on twenty volunteers (13M, 7F, 24-48 yr) who gave informed consent. Breath samples were obtained at 0,5, 10,15,20,25,30 minutes and 1,2,3,4,5,6,12, 24 hours after administration of the 1 μCi ^{14}C-urea capsule. A 24-hour urine collection was performed and the breath test repeated the next day. Sample results were converted to disintegrations per minute (dpm). H. Pylori positive (HP+) was defined as a 15 minute breath sample >=50 dpm. Total urine excretion was measured and breath excretion modeled by estimating the area under the excretion curve using a constant factor of 884 mmol CO_2 per hr. Total excretion (urine and breath) in HP+ and H. pylori-negative (HP-) volunteers were pooled and fit to a monoexponential function, estimating the cumulative urinary excretion of unmetabolized urea. Previously reported biokinetic models of ^{14}C-urea and bicarbonate (JNM 1993;34:821-825) were used to estimate radiation doses from each compound. Weighted sums of each dose estimate were calculated for the two groups. RESULTS:

	Day 1 dpm (15 min)	Day 2 dpm (15 min)	% in Urine	% in Breath	Total 24hr Excretion	EDE (mrem)
HP+ (9)	1320 ±830	1190 ±655	34 ±15%	38 ±18%	73 ±8%	0.24
HP- (11)	7.5 ±6.1	7.0 ±6.0	68 ±7%	5 ±3%	73 ±11%	0.086

HP+ and HP- volunteers excreted an average of 73% of the ^{14}C in 24hr post-ingestion. ^{14}C excretion for HP+ was evenly divided between breath and urine while ^{14}C excretion for HP- was almost solely by the urinary pathway. The red marrow receives the largest dose for HP+ (0.33 mrad) and the bladder wall receives a maximum 0.54 mrad in HP-. The Effective Dose Equivalent (EDE) is 0.24 mrem for HP+ and 0.086 mrem for HP-. No difference between day 1 and day 2 test results (p >0.6) exists. CONCLUSION: This study verifies existing calculations for dose estimates. The urea excretion of this capsule-based test is similar to that of liquid-form ^{14}C-urea. This reproducible, sensitive test has a minimal risk due to a radiation dose similar to normal background levels. This work was supported in part by a grant from TRI-MED Specialties, Inc.