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PA.34

USEFULNESS OF REAL-TIME GASTRIC JUICE ANALYSIS IN THE DIAGNOSIS OF ATROPHIC GASTRITIS OF THE OXYNTIC MUCOSA

A. Tucci*[,1], M. Bisceglia[2], M.F. Maselli[3], A. Marchegiani[4], G. Papadopoli[4], P. Fusaroli[1], G. Caletti[1]

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Background and aim: Atrophic gastritis of the oxyntic mucosa (AGOM) is commonly considered a rare finding. Indeed, when properly investigated it shows a relatively high prevalence. This suggests that AGOM goes often undetected and this may be of great consequence as this affection represents an important risk factor for gastric cancer.
Purpose of the present study was to assess the potential of a new approach (real-time gastric analysis) aimed to detect AGOM in patients undergoing upper gastrointestinal endoscopy, evaluating the diagnostic accuracy and the cost-effectiveness of this new method.
Material and methods: A multicenter study (17907 patients; 10 endoscopy Units) was performed to estimate the frequency of diagnosis of AGOM in routine endoscopic practice. Furthermore, a prospective study was carried out on 216 patients to estimate the actual prevalence this condition as well as the diagnostic accuracy of real-time gastric juice analysis (performed by means of an innovative device, the Mt 21-42) and that of the conventional methods (endoscopic pattern, histological evaluation, serum gastrin, intrinsic factor antibodies, B12 vitamin, Folate, parietal cell antibodies, pepsinogen). In addition, a cost-analysis comparison (between the new approach and the conventional methods) was also carried out.
Results: The results of the study demonstrated that AGOM is greatly underdiagnosed in routine endoscopic practice (occurrrence of diagnosis: 0.8% versus 12.5% in the prospective study). This is essentially due to the intrinsic limitations of the conventional tests and lack/inappropriateness of biopsy planning (table 1). Compared with the other diagnostic strategies, the new approach showed the highest effectiveness (12.0 vs. 1.9-6.5) and the best cost-effectiveness ratio (1048 vs. 2008-7226).
Conclusions: AGOM represents an insidious condition that often goes undetected in current clinical practice. The conventional methods for AGOM are limited by a low sensitivity. Real-time gastric juice analysis seems to remedy this serious deficiency and represents a useful and economical method for the diagnosis of this important risk factor for gastric cancer.
B. Gastric diseases 5. Pre-cancerous lesions

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SILYBIN PRESENTS A POTENT PRO-APOPTOTIC EFFECT IN VITRO

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Background and aim: The main effects attributed both in vitro and in vivo to Silybin are related to its antioxidant and cytoprotective actions. Silybin is also considered a potent pro-apoptotic agent. This study was designed to evaluate the effect of Silybin on apoptosis related cell death in cultured MKN-28 cells.
Material and methods: Cells were pre-incubated with different concentrations of Silybin (10-100 μM) for 24 hours. Cell viability was determined by the MTT (3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyl tetrazoliumbromide) assay at 540 nm. Quantitative analysis of apoptotic cells with or without treatment of Silybin was done by using the Annexin V-FITC binding and analyzed by flow cytometry. MKN-28 cells were treated with Silybin (0-25 μM) for 24 hours with or without xanthine-xanthine oxidase induced cell damage. This was obtained by incubating cells with xanthine oxidase (XO) (50 mU/ml) in the presence of its substrate xanthine (X) (1mM) for 120 minutes.
Results: After 24 hours incubation, we found that Silybin induced a progressive dose-depending reduction of cell viability, also at the lower concentrations used. The exposure of cells to xanthine-xanthine oxidase caused a significant increase of the percentage of apoptotic cells that binds Annexin V-FITC compared with control (cells no treated).
Conclusions: Silybin caused an increase of apoptosis and the contemporaneous presence of Silybin and oxidative stress enhanced its capability to induce apoptosis: Annexin V-FITC binding has been 2.99% for controls (MKN-28 no treated), 5.50% for X-XO*, 7.52% for Silybin 10 microM*, 22.05% for Silybin 10 microM + X-XO** (*p<0.05, **p<0.01).
B. Gastric diseases 5. Pre-cancerous lesions

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PROMOTER POLYMORPHISM OF THE CD14 GENE IN COELIAC PATIENTS WITH EXTRAINTESTINAL MANIFESTATION

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Background and aim: Clinical manifestations of celiac disease (CD) include classical intestinal symptoms of malabsorption and extra-intestinal disorders. Cryptogenic hypertransaminasemia (HT) (15-55%) and bone alterations (35%) are the most frequent extra-intestinal manifestations of CD. An increased intestinal permeability to different substances, particularly lipopolysaccharide (LPS), may activate a

Abstract PA.34 – Table 1

	Real-time gastric juice analysis	Endoscopy	Routine histology	Gastrin	Pepsinogen	Itrinsic Factor antibodies	Parietal Cell antibodies	Vitamin B_{12}	Folate
Sensitivity, %	96.3%*	14.8%	38.5%	40.7%	40.7%	3.7%	33.3%	22.2%	11.1%
(95%CL)	(89.2-100.0)	(1.4-28.2)	(19.8-57.2)	(22.2-59.3)	(22.2-59.3)	(0-10.8)	(15.6-51.1)	(6.5-37.9)	(0-23.0)
Specificity, %	85.7%	99.5%	97.9%	98.4%	98.4%	100.0%	94.7%	99.5%	99.5%
(95%CL)	(80.7-90.7)	(98.4-100.0)	(95.8-99.9)	(96.6-100)	(96.6-100)	(100.0-100.0)	(91.5-97.9)	(98.4-100.0)	(98.4-100.0)
Positive predictive value, %	49.1%	80.0%	71.4%	78.6%	78.6%	100.0%	47.4%	85.7%	75.0%
(95%CL)	(36.1-62.1)	(37.6-96.4)	(45.4-88.3)	(52.4-92.4)	(52.4-92.4)	(20.7-100.0)	(27.3-68.3)	(48.7-97.4)	(30.1-95.4)
Negative predictive value, %	99.4%	89.1%	92.0%	92.1%	92.1%	87.9%	90.9%	90.0%	88.7%
(95%CL)	(96.6-99.9)	(84.2-92.6)	(87.5-95.0)	(87.5-95.1)	(87.5-95.1)	(82.9-91.6)	(86.0-94.1)	(85,1-93.3)	(83.7-92.3)

*P<0.001 - Chi-2 test.