

CONTROVERSIE IN TEMA DI MANAGEMENT DEI PAZIENTI CON MRGE

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Utilità del test farmacologico
nella malattia tipica ed extraesofagea

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INIBIZIONE DELLA SECREZIONE ACIDA COME TEST DIAGNOSTICO (PPI test)

Principi :

Inibizione profonda e sostenuta della secrezione acida per periodi relativamente brevi (test non terapia)



Miglioramento significativo dei sintomi del paziente



Diagnosi di patologia / sintomi acido-correlati

PPI test vs Terapia Empirica

	Dose	Durata	Indagini	Scopo
PPI test	++	+	SI / NO	Diagnosi (ex-iuvantibus)
Tx empirica	+	++	NO	Terapia (dx a-posteriori)

The Proton-Pump Inhibitor test (PPI test)

Factors influencing the test performance:

- PPI daily dose and duration of administration
- Criteria for the test to be positive (threshold)
- Patient population



Typical GERD
Atypical GERD
Extraesophageal symptoms

Methods of assessing the usefulness of a test in making a diagnosis

- Sensitivity $\frac{\text{tests +}}{\text{patients}}$
- Specificity $\frac{\text{tests -}}{\text{controls}}$
- Positive predictive value $\frac{\text{true tests +}}{\text{total tests +}}$
- Negative predictive value $\frac{\text{true tests -}}{\text{total tests -}}$
- Likelihood ratio $\frac{\text{SE}}{1 - \text{SP}}$



Probability of positive PPI test in pts. with GERD

Probability of positive PPI test in pts. without GERD

PPI test in GERD patients

Authors	Pts.	drug	Duration wks	Outcome Measure *
Bate,'99	58	Ome 40	2	>50%
Fass,'99	42	Ome 60	1	≥ 50%
Fass,'00	35	Ome 60	1	≥ 50%
Juul-Hansen,'01	56	Lanso 60	5/7	> 75%
Schenk,'97	41	Ome 40	2	>50%

* Symptom reduction or antacid use

Diagnostic evaluation of the PPI test in GERD patients with 24-h pHmetry as reference standard

Authors	SE	SP	PPV	NPV	LR
Bate,'99	0.69	0.58	0.67	0.60	1.64
Fass,'99	0.80	0.57	0.90	0.36	1.86
Fass,'00	1.0	0.43	0.72	1.0	1.75
Juul-Hansen,'01	0.85	0.50	0.73	0.69	1.70
Schenk,'97	0.68	0.63	0.68	0.63	1.84

PPI test in patients with NCCP

Authors	Pts.	Drug	Duration wks	Outcome measure
Squillace,'93	17	Ome 80	1 day	> 50%
Fass,'98	39	Ome 60	1	> 50%
Pandak,'02	44	Ome 80	2	> 50%
Xia,'03	36	Lanso 30	4	> 50%
Bautista,'04	40	Lanso 90	1	> 50%
Dekel,'04	94	Various	1	> 50%
Fass,'02	20	Rabe 40	1	> 50%

Diagnostic evaluation of the PPI test in patients with NCCP (24-h pHmetry and/or endoscopy as reference standard)

Authors	SE	SP	PPV	NPV	LR
Fass,'98	0.78	0.86	0.90	0.71	5.48
Pandak,'02	0.95	0.61	0.73	0.92	2.44
Xia,'03	0.92	0.67	0.58	0.94	2.75
Bautista,'04	0.78	0.91	0.88	0.83	8.56
Dekel,'04	0.89	0.60	0.80	0.75	2.22
Squillace,'93	0.69	0.75	0.90	0.43	2.77
Fass,'02	0.83	0.75	0.83	0.75	3.33

PPI test in patients with extraesophageal symptoms (Chronic Persistent Cough)

Authors	pts	drug	duration wks	SE (%)	SP (%)
Ours, '99 *	n.17	Ome 80	2	35.3	100
Jaspersen, '99 #	n. 21	Ome 60	1	80.8	91.7
Baldi, '06 *	n.51	Lanso 60	4	46.4	47.8

* vs pH-metry

vs histology

PPI TEST

PPI test : lanso 60 mg/die per 4 settimane

Scala Analogica Visuale (VAS)



Positivo se: valore post tx = 0 oppure
 Δ pre-post tx. ≥ 5

PPI test performance in patients with CPC (esophageal pH-metry as reference standard)

Pts.n.	SE (%)	SP (%)	PPV (%)	NPV (%)	LR
51	46.4	47.8	52	42.3	0.86

PPI test performance in patients with CPC (response to therapy * as reference standard)

Pts.n.	SE (%)	SP (%)	PPV (%)	NPV (%)	LR
35	85.7	71.4	81.8	76.9	2.96

* Complete resolution of symptoms after Lanso 30-60 mg od for 12 weeks

PPI test predicts the response to treatment in patients with suspected GERD-related chronic cough

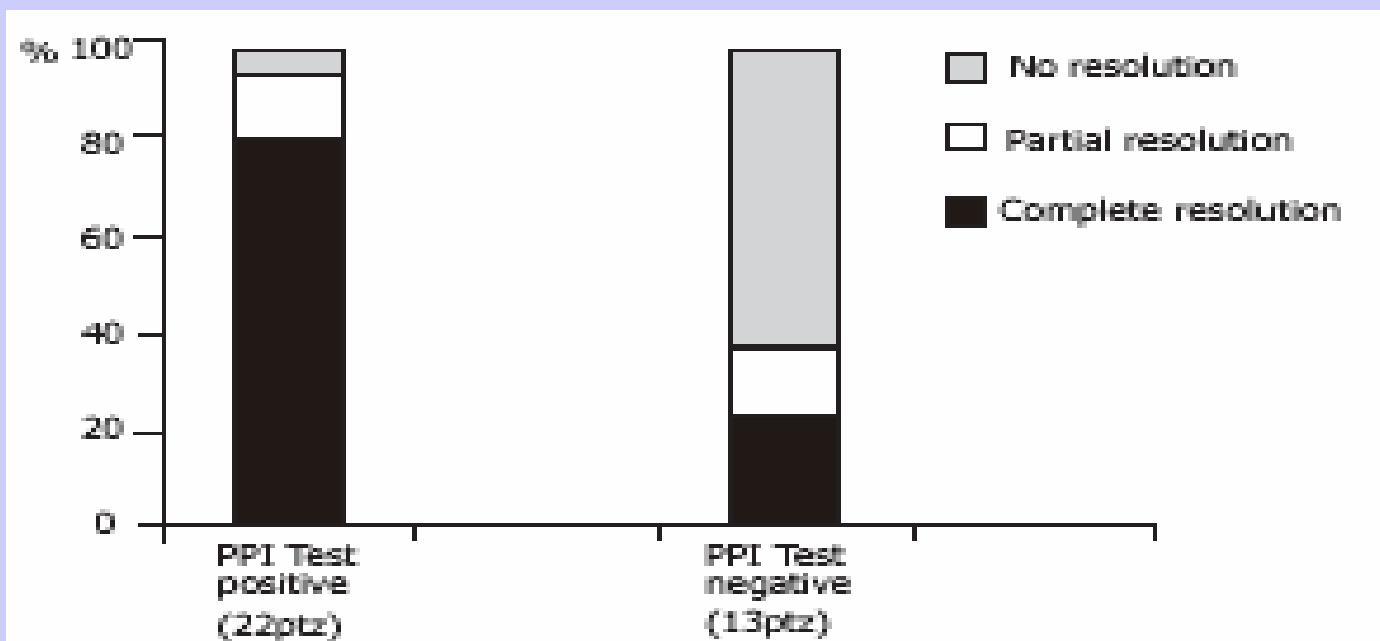


Figure 2 Percentage of patients showing symptomatic response at the end of 12-wk treatment with 30 or 60 mg/d lansoprazole ($n = 35$), subdivided according to the outcome of PPI test. $P < 0.05$ vs negative PPI test.

Cost-effectiveness of Omeprazole test (60 mg od x 7 days) in patients with NCCP

	Order of invasive diagnostic tests	Cost/patient (\$)	Pts. Symptom-free at 1 year (%)
Traditional dx strategies	EGDS pH-metry manometry	2313	73
	pH-metry, manometry, EGDS	2166	74
Dx strategies beginning with omeprazole test	EGDS pH-metry manometry	1917	84
	pH-metry, manometry, EGDS	1859	84

Cost-effectiveness of different diagnostic strategies to assess GERD in patients with chronic persistent cough in Italy

Effectiveness

EGDS (esophagitis)

pH-metry (pH<4 >5% distal and/or >1% prox)

PPI test (Lanso 30 mg bid x 4 wks)

Cost analysis

A. DIRECT

- diagnostic procedures

B. INDIRECT

- absence from work

Effectiveness of six diagnostic strategies in 51 patients with CPC

Strategy	I test	II test	III test	Effectiveness (% pts.+)	Dx procedures
A	EGDS	pH	IPP	78.4	119
B	pH	EGDS	IPP	78.4	97
C	IPP	EGDS	pH	78.4	100
D	IPP	pH	EGDS	78.4	88
E	EGDS	IPP	pH	78.4	119
F	pH	IPP	EGDS	78.4	85

Cost analysis

	direct *	indirect**	total
•EGDS	56,81	53,7	110,5
•pH-metry	81,6	112,9	194,5
•PPI test ***	90,2		90,2

* published national tariffs

** days of absence from work were 0.82 for pHmetry and 0.39 for EGDS
mean value of a day of work = 137.7 (ISTAT 2005)

*** Lansoprazole 30 mg bid x 4 wks (2005)

2007 : cost of PPI test may range from 44.8 to 95.2 euros

Cost of six strategies in 51 patients with CPC (Euro/patient)

Strategy		Direct	Indirect	Total
A	EGDS-pH-PPI	169,4	153,3	322,7
B	pH-EGDS-PPI	147,9	137,2	285,0
C	PPI-EGDS-pH	186,3	114,5	300,8
D	PPI-pH-EGDS	142,9	68,1	211,1
E	EGDS-PPI-pH	173,1	104,6	277,7
F	pH-PPI-EGDS	133,4	123,6	256,9

Utilità del test farmacologico nella malattia tipica ed extraesofagea

Pro

- Elevata sensibilità
- Ampia disponibilità
- Facilità di esecuzione
- Basso costo
- Non invasivo

Contro

- Bassa specificità
- Difficile interpretazione
- Scarso valore predittivo neg.
- Pochi studi controllati

Cost-effective nei pazienti con sintomi atipici

Grazie per l'attenzione !