

Prevalence and distribution of
virulence factor *dupA* gen
among Spanish *Helicobacter*
pylori clinical isolates

INTRODUCTION

- Virulence factors
- Host genetic characteristics
- Environmental factors



2005 Lu et al (Japan ,Korea, Colombia)
Duodenal Ulcer Promoting gene
dup A gene

Virulence factor related with single pathology



Active Duodenal Ulcer

INTRODUCTION

Different studies have shown controversial results:

Positive/Negative association

Geography



Age



dupA Polymorphism

OBJECTIVE

The aim of this study was to determine

- Prevalence
- Distribution



METHODS

Biopsies of symptomatic patients 2008 - 2009

Cultured



37 ° C

5% CO₂ atmosphere

DNA extraction automatic system
EasyMag (BioMérieux)



After conventional PCR:

F- 5' GCTTATGATGTGGATAATATCACTTC
R- 3': TGTGGAACAAATACATAGCAATTAG

Fragments of 1076 bp were detected by electrophoresis
with 1,2% agarose gel.

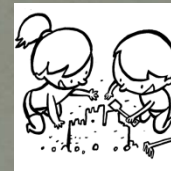
RESULTS

80 Spanish strains

53,75 % Children
46,25 % Adults

• dupA gene prevalence and distribution:

35 % studied population



25,58%

49,95%



Histopathologic Findings	Percentage
Duodenal ulcer	3,57%
Antral nodularity	64,28%
Without alterations	17,86%
Without data	14,28%

RESULTS

80 Spanish
strains

53,75 % Children
46,25 % Adults

- Relationship with classical virulence factors:

26,25% *cagA* positive

80 Spanish strains

26,25% *vacA* s1 positive

	<i>dupA</i> positive	
<i>cagA</i> +	42,86 %	p > 0,05
<i>cagA</i> -	32,20 %	
<i>vacA</i> s1	47,61 %	p > 0,05
<i>vacA</i> s2	39,53 %	

CONCLUSIONS

- *dupA* was present in 35% of the population studied, although the majority of the population did not suffer from duodenal ulcer
- *dupA* prevalence was 10% higher than *vacA* s1 and *cagA* genes, however their relationship was not statistically significant
- Age seemed to be an important factor for the prevalence of *dupA* gen with almost double of prevalence in adults patients

Aknowledgement:

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