“Diagnosis of chronic atrophic gastritis and Helicobacter pylori infection in Chile”

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Japan Gastroenterological Endoscopy Society
COI Disclosure

Lead presenter: Andrés Donoso D. M.D.

In connection with this presentation, there is no COI to be disclosed with any companies.
Introduction

• Chile is a developing South American country with high mortality rates of gastric cancer (GC) and high rates of Helicobacter Pylori (HP) infection
“Endemic areas”

HP infection rates in Chile

Figure 2. Age prevalence of *H. pylori* infection by gastric cancer mortality in the county of residence (adjusted according to generalized additive model with penalized likelihood maximization).

Chronic atrophic gastritis in Chile

Figure 1  Frequency of gastric atrophy and *H pylori* infection in 536 asymptomatic subjects by age.

Progression rate of premalignant gastric lesions

“The identification of precancerous conditions and surveying patients in whom they are found could lead to the diagnosis of gastric cancer at early stage and improve patient’s survival”
Survival for patients who underwent surveillance of premalignant gastric lesions

“Endoscopic diagnosis of premalignant gastric lesions”
“Drawbacks for the endoscopic diagnosis of premalignant gastric lesions in Chile”

- High inter-observer variability under WLI* 
- Time consuming procedure and potential adverse effects of chromoendoscopy* 
- Very limited availability of magnifying endoscopy, NBI, LBI, AFI, CLE and properly trained endoscopists 

“Drawbacks for the endoscopic diagnosis of premalignant gastric lesions in Chile”

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<th>Sign</th>
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<td>*Submucosal vessel visibility</td>
<td>48%</td>
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“Drawbacks for the endoscopic diagnosis of premalignant gastric lesions in Chile”

- High inter-observer variability under WLI*
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“Drawbacks for the endoscopic diagnosis of premalignant gastric lesions in Chile”

• High inter-observer variability under WLI*

• Time consuming procedure and potential adverse effects of chromoendoscopy*

• Very limited availability of magnifying endoscopy, NBI, LBI, AFI, CLE and properly trained endoscopists

What can we currently do in Chile?

- Although there is no GC screening program in Chile, the Chilean Association for Digestive Endoscopy (ACHED) has recently released a guideline with recommendations for the detection and management of gastric pre-malignant lesions.
Recommendations of the Chilean association for digestive endoscopy for the management of gastric pre-malignant lesions

An expert panel analyzed the available evidence and reached a consensus to release 24 recommendations for primary and secondary prevention of gastric cancer (CG) in symptomatic patients, with indication for upper GI endoscopy. The main recommendations include: (1) Search for and eradicate H. pylori infection in all cases. (2) Systematic gastric biopsies (Sydney protocol) in all patients over 40 years of age or first grade relatives of patient with CG, to detect gastric atrophy, intestinal metaplasia or dysplasia. (3) Incorporate the OLGA system (Operative Link on Gastritis Assessment) to the pathological report, to categorize the individual risk of CG. (4) Schedule endoscopic follow-up according to the estimated risk of CG, namely annual for OLGA III-IV, every 3 years for OLGA I-II or persistent H. pylori infection, every 5 years for CG relatives without other risk factors and no follow-up for OLGA 0, H. pylori (-). (5) Establish basic human and material resources for endoscopic follow-up programs, including some essential administrative processes, and (5) Suggest the early CG/total CG diagnosis ratio of each institution and the proportion of systematic recording of endoscopic images, as quality indicators. These measures are applicable using currently available resources, they can complement any future screening programs for asymptomatic population and may contribute to improve the prognosis of CG in high-risk populations.

(Rev Med Chile 2014; 142: 1181-1192)

Key words: Gastric neoplasms; Health planning guidelines; Mass screening.
Recommendations of the Chilean association for digestive endoscopy for the management of gastric pre-malignant lesions
1. Search for and eradicate HP infection in all cases

2. Systematic gastric biopsies (Sydney protocol) in all patients over 40 yo or first-grade relatives of patients with GC, to detect CAG, IM or dysplasia

3. Incorporate the Operative Link on Gastritis Assessment in the pathological report to categorize the individual risk of GC
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Visual analog scale (Sydney protocol)

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### OLGA staging system

<table>
<thead>
<tr>
<th>Atrophy score</th>
<th>Corpus</th>
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<tbody>
<tr>
<td></td>
<td>Not fat: no atrophy</td>
</tr>
<tr>
<td>Antrum (including incisura angularis)</td>
<td>(score 0)</td>
</tr>
<tr>
<td>No atrophy (score 0)</td>
<td>Stage 0</td>
</tr>
<tr>
<td>Mild atrophy (score 1)</td>
<td>Stage I</td>
</tr>
<tr>
<td>Moderate atrophy (score 2)</td>
<td>Stage II</td>
</tr>
<tr>
<td>Severe atrophy (score 3)</td>
<td>Stage III</td>
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OLGA, Operative link on gastritis assessment.

## OLGIM staging system

**TABLE 2. Proposal for the OLGIM staging system**

<table>
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IM, Intestinal metaplasia; OLGIM, operative link on gastric intestinal metaplasia assessment.

4. Endoscopic follow-up according to the estimated risk of GC:

- 1 year: OLGA III / IV
- 3 years: OLGA I / II or persistent HP infection
- 5 years: GC relatives without other risk factors
- No follow up: OLGA 0 / HP (-)
5. Establish basic human and material resources for endoscopic follow-up programs

6. Use the early GC/total GC diagnosis ratio and the proportion of systematic recording of endoscopic images as quality indicators
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6. Use the early GC/total GC diagnosis ratio and the proportion of systematic recording of endoscopic images as quality indicators
OLGA staging system

Summary and conclusions

- In our daily practice, it has been recommended to focus on the diagnosis of pre-malignant gastric lesions and HP infection using careful observation, histology and urease testing.
Summary and conclusions

• Also, we are currently conducting a study in Molina (the county with the highest GC-related mortality) comparing magnifying endoscopy with biopsies and ureasa testing for CAG and HP infection
Summary and conclusions

- Perhaps in the future we will be able to make routinely endoscopic diagnosis of HP infection and CAG
Summary and conclusions

- Still, more studies are needed to know whether endoscopic diagnosis is superior to histology/ureasa testing for the diagnosis of CAG/HP infection as a daily practice in Chile.
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