# Letters to the Editor

# Acute psychotic episode secondary to *Helicobacter pylori* eradication treatment

Key words: Antibiomania. Helicobacter pylori. Psychosis. Clarithromycin.

DOI: 10.17235/reed.2017.4482/2016

## Dear Editor,

The side effects of *Helicobacter pylori* (*H. pylori*) eradication treatment are few, usually in the form of gastrointestinal or allergic complaints (1). However, occasionally, some antibiotics such as clarithromycin, included in the classic eradication regimen, may result in reversible psychosis, a condition called "antibiomania" or "Hoigne syndrome" (2).

#### **Case report**

We report the case of a 57-year-old male with no history of psychiatric disorders or substance abuse, who was admitted for mild upper GI bleeding from a Forrest IIC duodenal ulcer. *H. pylori* eradication with pantoprazole, amoxicillin and clarithromycin was prescribed.

At 24 hours after admission he presented with self-limited withdrawal. At 36 hours he also had mistrust and selfreference ideas involving his caregivers ("They want to kill me", "What am I doing here?"), and threw himself out of the window in his room in an attempt to escape from hospital, suffering multiple non-severe contusions. Brain CT and EEG were normal.

The Psychiatry Department substituted levofloxacin for clarithromycin, and added olanzapine, which resulted in complete remission at 48 hours. The sudden onset of the episode, characteristics and clinical improvement following clarithromycin discontinuation supported a diagnosis of acute psychotic episode secondary to clarithromycin.

### Discussion

Antibiomania is a syndrome characterized by confusion, insomnia, mania and/or hallucinations that develops at 24-72 hours after antibiotic therapy onset, and subsides within 72 hours after antibiotic discontinuation (1). Its pathophysiology remains unknown and is likely multifactorial (3); cases have been described with clarithromycin both as monotherapy (3) and in combination with other drugs (4,5) (Table I). Awareness is crucial regarding this complication, which is uncommon but potentially serious.

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| Indication                      | Other drugs                | Patient        | Author                |
|---------------------------------|----------------------------|----------------|-----------------------|
|                                 |                            | Female, 49 yrs | Dinca, 2015           |
|                                 |                            | Female, 51 yrs | Feng, 2013            |
|                                 |                            | Male, 49 yrs   | Shah, 2012            |
|                                 |                            | Male, 42 yrs   | Lassnig, 2010         |
| Infection with <i>H. pylori</i> | PPIs and other antibiotics | Male, 94 yrs   | Htut, 2006            |
|                                 |                            | Female, 65 yrs | Ortiz-Domínguez, 2004 |
|                                 |                            | Female, 55 yrs | Neff, 2002            |
|                                 |                            | Female, 49 yrs | Gómez-Gil, 1999       |
|                                 |                            | Female, 50 yrs | Gómez-Gil, 1999       |
|                                 | Anesthetics                | Male, 18 yrs   | Przybilo, 2005        |
| Respiratory<br>infection        | Fluoxetine                 | Male, 53 yrs   | Pollak, 1995          |
|                                 | Paroxetine                 | Female, 36 yrs | Jaber, 2006           |
|                                 | Prednisone                 | Male, 78 yrs   | Liu, 2014             |
|                                 | Prednisone                 | Female, 52 yrs | Abbouesh, 1998        |
|                                 | Antiretroviral drugs       | Male, 58 yrs   | Prime, 2001           |
|                                 | Antiretroviral drugs       | Male, 21 yrs   | Nightingale, 1995     |
|                                 |                            | Male, 33 yrs   | Nightingale, 1995     |
|                                 | Carbamazepine              | Male, 50 yrs   | Yasuji, 1997          |
|                                 |                            | Male, 50 yrs   | Yasuji, 1997          |
|                                 |                            | Female, 51 yrs | Yasuji, 1997          |
|                                 |                            | Female, 66 yrs | Yasuji, 1997          |
|                                 |                            | Female, 63 yrs | Yasuji, 1997          |
|                                 |                            | Female, 65 yrs | Yasuji, 1997          |
|                                 |                            | Female, 65 yrs | Yasuji, 1997          |
|                                 | Carbamazepine              | Male, 3 yrs    | Gelisse, 2007         |
|                                 |                            | Male, 66 yrs   | Gelisse, 2007         |
|                                 |                            | Male, 23 yrs   | Gelisse, 2007         |
|                                 | Other antibiotics          | Male, 48 yrs   | Jacob, 2014           |
|                                 |                            | Female, 63 yrs | De Vera, 2006         |
|                                 |                            | Male, 77 yrs   | Cone, 1996            |
|                                 | Monotherapy                | Male, 53 yrs   | Kouvelou, 2008        |
|                                 |                            | Male, 87 yrs   | Ozsoviar, 2007        |
|                                 |                            | Female, 67 yrs | Brooks, 2005          |
|                                 |                            | Female, 32 yrs | Jiménez-Pulido, 2002  |
|                                 |                            | Female, 52 yrs | Warner, 2000          |
|                                 |                            | Male, 30 yrs   | Mermelstein, 1998     |
|                                 |                            | Male, 63 yrs   | Mermelstein, 1998     |
| Dermatological infection        | Monotherapy                | Female, 37 yrs | Rallis, 2009          |

#### Table I. Summary of clarithromycin-related antibiomania cases thus far described

Treatment indication, concomitant drugs, patient characteristics and author are included.

#### References

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