Reviewer's report

Title: Study of Helicobacter pylori genotype status in cows, sheep, goats and human beings

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Reviewer: Maria Pina P Dore

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General Comments

Beside the established reservoir of the human gastric mucosa, several animals, mostly living in the human environment, have been reported to harbor H. pylori in their stomach. Indirect evidence for a zoonotic source comes from studies showing a higher prevalence of antibodies against H. pylori in abattoir workers, such as butchers, slaughterers, and veterinarians. In addition, in previous studies H. pylori was cultured from the abomasum of sheep, suggesting that sheep and sheep dogs (living in contact with sheep) could play the main role acting as reservoir and/or vehicle in the chain of the epidemiological model of H. pylori infection as an antropozoonosis.

The study by Hassan Momtaz et al confirm previous observation of a high prevalence of H. pylori infection in sheep (16%). They also reported a prevalence among cows, of 3% (16%) and in human of 82%. 92.9-98.5% homology between sheep and human samples was found. These data reinforced the hypothesis of a zoonosis for H. pylori infection, at least, in specific environmental niches.

Overall the study performed by Hassan Momtaz et al is interesting and could be suitable for publication in BMC Gastroenterology Journal. However there are major concerns.

Comments

The manuscript is not very well presented, several grammar mistakes need to be fixed and English style improved:

-Page 2; line 9 in the abstract: This cross sectional study performed …. Need to be This cross sectional study was performed.
-Page 2; line 10 in the abstract: PCR assays performed to identify …………. Need to be PCR assays was performed to identify…………
-Page 2; line 19 in the abstract: There was a high ……….suggest, change with suggesting

Page 3, line 8: the highest prevalence of H. pylori infection was demonstrated in Sardinian shepherds. Please add reference.
Based on the comparison of the three completed genomes of H. pylori, six genes encoding outer-membrane proteins (babB, oipA, hopZ sabA, sabB and babC) are thought to undergo phase variation. III) need references.

Page 4, line 17: ........the sample from antral part of the stomach........Please specify which part: the rumen, reticulum, omasum, or abomasums!

Page 4, line 20: For analysis of the isolates from human.............The authors did not cultured H. pylori from gastric human and/or animal samples. Because of that they could not write about isolates!!

Page 4, line 21: ..........from the antrum of patients with dyspepsia symptoms ...... specify if patients were shepherds, if they have direct contact with animals or what!

Page 4, line 26: and stored until further investigation. Please specify how the samples were stored.

Page 6, line 13: Totally 600 ruminants and 200 human gastric samples were enrolled ..... please change enrolled with collected.

Page 4, line 14: According to histopathic examinations......... Please change the word histopathic

Page 4, line 16: According to gastroendescopy........Please fix the word gastroendescopy

Page 4, line 14 and 18: ..........gastric inflammations Please specify the kind of gastritis in animals and humans.

Page 7, line 27: healthy “resembling” cows, sheep, goats and human......... what the authors mean with healthy “resembling”??

Page 9, line 12: According to histological examinations, clinical manifestations......... Clinical manifestation are NOT histological examinations! Please ri-write the sentence.

Page 15; table 1: as previously, the authors did NOT isolated the H. pylori strains.

Page 16; table 2: idem

Page 17; table 3: idem

Page 18; table 3: idem. The authors analyzed H. pylori DNA extracted from tissue and not from isolates!

**Level of interest:** An article of importance in its field
Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests