**Name of Journal:** *World Journal of Gastroenterology*

**Manuscript NO:** 75977

**Manuscript Type:** LETTER TO THE EDITOR

**Is long-term follow-up without surgical treatment a valid option for hepatic alveolar echinococcosis?**

Maimaitinijiati Y *et al*. Follow-up for hepatic alveolar echinococcosis

Yusufukadier Maimaitinijiati, Yuan Meng, Xiong Chen

**Yusufukadier Maimaitinijiati, Yuan Meng, Xiong Chen,** Department of Hepatobiliary Surgery, People’s Hospital of Xinjiang Uyghur Autonomous Region, Urumqi 830001, Xinjiang Uyghur Autonomous Region, China

**Yusufukadier Maimaitinijiati,** School of Clinical Medicine, Medical College of Tsinghua University, Beijing 100084, China

**Author contributions:** Maimaitinijiati Y performed the research and wrote the letter; Meng Y and Chen X revised the letter.

**Corresponding author: Xiong Chen, MD, Chief Doctor, Professor,** Department of Hepatobiliary Surgery, People’s Hospital of Xinjiang Uyghur Autonomous Region, No. 91 Tianchi Road, Tianshan District, Urumqi 830011, Xinjiang Uyghur Autonomous Region, China. 1512237458@qq.com

**Received:** February 24, 2022

**Revised:** April 13, 2022

**Accepted: June 3, 2022**

**Published online:**

**Abstract**

We read the article titled, “Long-term follow-up of liver alveolar echinococcosis using echinococcosis multilocularis ultrasound classification,” by Schuhbaur J with great interest. However, we found some worthwhile issues that we believe should be discussed with the authors, and have provided our comments in this letter. It would be valuable if the authors could provide further information about the clinical stages, follow-up time, and clinical outcomes of the patients.

**Key Words:** Alveolar echinococcosis; Albendazole; Surgical treatment; Ultrasound; Follow-up

Maimaitinijiati Y, Meng Y, Chen X. Is long-term follow-up without surgical treatment a valid option for hepatic alveolar echinococcosis? *World J Gastroenterol* 2022; In press

**Core Tip:** Although many experts suggest that radical surgery combined with albendazole treatment is the optimal option for alveolar echinococcosis patients, no clear consensus has been reached on whether long-term treatment using albendazole alone without any surgical intervention can cure or control the disease. Therefore, some professional issues need to be clarified by discussion with peers, in order to benefit as many patients as possible.

**TO THE EDITOR**

We read the article titled, “Long-term follow-up of liver alveolar echinococcosis using echinococcosis multilocularis ultrasound classification,” by Schuhbaur *et al*[1] with great interest. In this significant study, the authors observed changes in sonomorphology during the follow-up of hepatic lesions using a sonomorphologic classification scheme. However, after reading the article carefully, we found some worthwhile issues that we would like to discuss with the authors.

Alveolar echinococcosis (AE) is an infectious zoonotic parasitic disease, which has been a major public health problem in its epidemic area[2]. In the large majority of cases, the liver is the first organ to be infested by the larvae. Hepatic AE often invades the surrounding vessels and adjacent organs in its advanced stages. The mortality rate within 10 years after diagnosis is more than 90% if the lesion is inadequately or not treated[3]. According to the World Health Organization Informal Working Group on Echinococcosis criteria[4], radical surgery combined with albendazole treatment is the optimal option for AE patients. In this article, the authors included 59 patients from Germany’s national echinococcosis database, who were “considered” to have hepatic AE, and long-term follow-up using ultrasound was performed. However, they did not mention the clinical stages, specific follow-up time, and clinical prognosis of these patients. Hepatic AE is known as “parasitic cancer,” due to its tumor-like characteristics with infiltration of vessels or biliary structures and distant metastasis. To date, no clear consensus has been reached on whether long-term treatment using albendazole alone without any surgical intervention can cure or control the disease. A 5-year analysis of two distinct cohorts in Bern, Switzerland and Besancon, France demonstrated that conservative treatment was less effective than surgical therapy[5]; however, longer follow-up results have not been available. Currently, “watch and wait” is not recommended unless complete inactivity of the AE lesion can be confirmed, in order to avoid delayed treatment resulting in adverse outcomes[6].

The authors’ team proposed an ultrasonographic classification scheme for hepatic AE in 2015[7], which was used to follow 59 patients. However, we noted that the authors stated that all but 1 patient received antiparasitic drugs, but they also claimed that more than half of the patients (55.9%) were defined as “probable” hepatic AE. In such a case, the use of albendazole and other drugs with hepatotoxicity may cause unnecessary harm to patients. According to a recent study with long-term observation of 117 AE patients, about 44.4% experienced adverse reactions when taking albendazole, and severe liver toxicity occurred in 7.7% patients[8]. We believe that the authors should have provided a more detailed explanation about whether the use of albendazole is indeed necessary for these patients. The high rate of inoperable disease at diagnosis underscores the need for an early, definitive diagnosis. However, in cases that cannot be confirmed by conventional examination, supplementary tests such as serology and positron emission tomography (PET)/computed tomography (CT) may be useful.

Bresson-Hadni *et al*[9] suggested that “surgical resection, if feasible, is the gold standard for treatment.” We also believe that early radical resection of the lesion should be considered in patients with hepatic AE, unless it is defined as unresectable. Based on the clinical guidelines and previous reports, the objectives for the treatment of hepatic AE should include the following: Completely removing the parasitic lesion, combined with 2 years of albendazole treatment after surgery; if this is not possible, reducing the proliferating potential of echinococcosis multilocularis by continuous administration of albendazole; and lesions that are massively calcified and/or negative by CT or PET may benefit from a “watch-and-wait” approach.

In summary, we admire the efforts of the authors in using ultrasound to assess sonomorphology changes over time in hepatic AE lesions. Nevertheless, it would be valuable if the authors could provide further information about the clinical stages, follow-up time, and clinical outcomes of the patients.

**REFERENCES**

1 **Schuhbaur J**, Schweizer M, Philipp J, Schmidberger J, Schlingeloff P, Kratzer W. Long-term follow-up of liver alveolar echinococcosis using echinococcosis multilocularis ultrasound classification. *World J Gastroenterol* 2021; **27**: 6939-6950 [PMID: 34790016 DOI: 10.3748/wjg.v27.i40.6939]

2 **Torgerson PR**, Keller K, Magnotta M, Ragland N. The global burden of alveolar echinococcosis. *PLoS Negl Trop Dis* 2010; **4**: e722 [PMID: 20582310 DOI: 10.1371/journal.pntd.0000722]

3 **Vuitton DA,** Bresson-Hadni S. Alveolar echinococcosis: evaluation of therapeutic strategies. *Expert Opin Orphan D* 2014; **2**: 67-86 [DOI: 10.1517/21678707.2014.870033]

4 **Brunetti E**, Kern P, Vuitton DA; Writing Panel for the WHO-IWGE. Expert consensus for the diagnosis and treatment of cystic and alveolar echinococcosis in humans. *Acta Trop* 2010; **114**: 1-16 [PMID: 19931502 DOI: 10.1016/j.actatropica.2009.11.001]

5 **Beldi G**, Vuitton D, Lachenmayer A, Heyd B, Dufour JF, Richou C, Candinas D, Bresson-Hadni S. Is *ex vivo* liver resection and autotransplantation a valid alternative treatment for end-stage hepatic alveolar echinococcosis in Europe? *J Hepatol* 2019; **70**: 1030-1031 [PMID: 30718093 DOI: 10.1016/j.jhep.2018.12.011]

6 **Wen H**, Vuitton L, Tuxun T, Li J, Vuitton DA, Zhang W, McManus DP. Echinococcosis: Advances in the 21st Century. *Clin Microbiol Rev* 2019; **32** [PMID: 30760475 DOI: 10.1128/CMR.00075-18]

7 **Kratzer W**, Gruener B, Kaltenbach TE, Ansari-Bitzenberger S, Kern P, Fuchs M, Mason RA, Barth TF, Haenle MM, Hillenbrand A, Oeztuerk S, Graeter T. Proposal of an ultrasonographic classification for hepatic alveolar echinococcosis: Echinococcosis multilocularis Ulm classification-ultrasound. *World J Gastroenterol* 2015; **21**: 12392-12402 [PMID: 26604646 DOI: 10.3748/wjg.v21.i43.12392]

8 **Zavoikin VD**, Zelya OP, Tumolskaya NI. Clinical tolerance and efficacy of anti-parasitic treatment with albendazole in patients with alveolar echinococcosis: long-term follow-up observation in 117 patients. *Parasitol Res* 2021; **120**: 3603-3610 [PMID: 34432154 DOI: 10.1007/s00436-021-07297-3]

9 **Bresson-Hadni S**, Spahr L, Chappuis F. Hepatic Alveolar Echinococcosis. *Semin Liver Dis* 2021; **41**: 393-408 [PMID: 34161992 DOI: 10.1055/s-0041-1730925]

**Footnotes**

**Conflict-of-interest statement:** All authors have no conflicts of interest to declare.

**Open-Access:** This article is an open-access article that was selected by an in-house editor and fully peer-reviewed by external reviewers. It is distributed in accordance with the Creative Commons Attribution NonCommercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: https://creativecommons.org/Licenses/by-nc/4.0/

**Provenance and peer review:** Invited article; Externally peer reviewed.

**Peer-review model:** Single blind

**Peer-review started:** February 24, 2022

**First decision:** April 5, 2022

**Article in press:**

**Specialty type:** Gastroenterology and hepatology

**Country/Territory of origin:** China

**Peer-review report’s scientific quality classification**

Grade A (Excellent): 0

Grade B (Very good): B

Grade C (Good): C

Grade D (Fair): 0

Grade E (Poor): 0

**P-Reviewer:** Aseni P, Italy; Augustin G, Croatia **S-Editor:** Liu X, United States **S-Editor:** Wang LL **L-Editor:** A **P-Editor:** Wang LL