

Choice of drugs in the treatment of chronic hepatitis B in pregnancy

Ertugrul Guclu, Oguz Karabay

Ertugrul Guclu, Oguz Karabay, Department of Infectious Diseases and Clinical Microbiology, Sakarya University Faculty of Medicine, 54200 Sakarya, Turkey

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Correspondence to: Ertugrul Guclu, Assistant Professor, Department of Infectious Diseases and Clinical Microbiology, Sakarya University Faculty of Medicine, Kemalpaşa Mh 1 Ring Yolu, 54200 Sakarya, Turkey. ertugrulguclu@hotmail.com

Telephone: +90-264-4445400 Fax: +90-264-2759192

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Abstract

The selection of antiviral drugs for chronic hepatitis B (CHB) treatment in pregnancy is very difficult since none of the drugs have been approved for use in pregnancy. Transmission from mother to newborn remains the most frequent route of infection in mothers with high viral load and positive hepatitis B e antigen status, even with the use of appropriate prophylaxis with hepatitis B virus (HBV) immunoglobulin and HBV vaccination. We read from the article written by Yi *et al* that lamivudine treatment in early pregnancy was safe and effective. However, we could not understand why adefovir dipivoxil (ADV) was used in three pregnancy cases, since ADV has been classified as pregnancy category C. In pregnancy, telbivudine or tenofovir should be selected when the treatment of CHB is necessary, since these drugs have been classified as Food and Drug Administration pregnancy risk category B.

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Key words: Pregnancy; Adefovir dipivoxil; Lamivudine; Tenofovir; Entecavir; Chronic hepatitis B; Treatment

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1671-1672 Available from: URL: <http://www.wjgnet.com/1007-9327/full/v19/i10/1671.htm> DOI: <http://dx.doi.org/10.3748/wjg.v19.i10.1671>

TO THE EDITOR

We read the article entitled “Safety of lamivudine treatment for chronic hepatitis B in early pregnancy”, with great interest. The management of chronic hepatitis B (CHB) in pregnancy is complex. Especially in endemic areas, vertical transmission from mother to newborn remains the most frequent route of infection and this situation often leads to chronic disease. Moreover, even with the use of appropriate prophylaxis with hepatitis B virus (HBV) immunoglobulin and HBV vaccination, a significant risk of vertical transmission remains, particularly in mothers with high viral loads and positive hepatitis B e antigen status^[1].

Without a doubt, the article by Yi *et al*^[2] sheds very important light on CHB treatment in pregnancy. They reported that lamivudine treatment in early pregnancy was safe and effective. In addition they stated that adefovir dipivoxil (ADV) was given in three cases who had HBV DNA above 10⁶ copies/mL, from week 28 of pregnancy. However, we know that ADV is classified as pregnancy category C and there are no adequate and well controlled studies on the use of adefovir during pregnancy^[3]. On the other hand, we have two drugs, tenofovir and telbivudine, which are classified as Food and Drug Administration pregnancy risk category B^[4]. Tenofovir received this classification based on data collected from human exposure, and in addition, Han *et al*^[5] study in pregnant women supports the “B” rating of telbivudine^[1]. In patients treated with ADV or entecavir, these drugs should be switched to safer drugs, if a woman becomes pregnant^[1]. For the sake of clarity for readers, it would be helpful if the authors explained why they selected ADV instead of tenofovir or telbivudine for pregnant women with CHB.

REFERENCES

- 1 **Petersen J.** HBV treatment and pregnancy. *J Hepatol* 2011; **55**: 1171-1173 [PMID: 21718670 DOI: 10.1016/j.jhep.2011.06.007]
- 2 **Yi W, Liu M, Cai HD.** Safety of lamivudine treatment for chronic hepatitis B in early pregnancy. *World J Gastroenterol* 2012; **18**: 6645-6650 [PMID: 23236240 DOI: 10.3748/wjg.v18.i45.6645]
- 3 **Yodit B.** Clinical review. Available from: URL: <http://www.fda.gov/downloads/Drugs/DevelopmentApprovalProcess/DevelopmentResources/ucm071699.pdf>
- 4 Risk categories of antimicrobics in pregnancy. In: Gilbert DN, Moellering RC, Eliopoulos GM, Chambers HF, Saag MS, editors. *The Sanford Guide to Antimicrobial Therapy 2009 (Thirty-Ninth Edition)*. Sperryville, USA: Antimicrobial Therapy Inc., 2009: 77
- 5 **Han GR, Cao MK, Zhao W, Jiang HX, Wang CM, Bai SF, Yue X, Wang GJ, Tang X, Fang ZX.** A prospective and open-label study for the efficacy and safety of telbivudine in pregnancy for the prevention of perinatal transmission of hepatitis B virus infection. *J Hepatol* 2011; **55**: 1215-1221 [PMID: 21703206 DOI: 10.1016/j.jhep.2011.02.032]

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