Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

From Medscape Education Clinical Briefs

GENERAL PEDIATRIC DEPARTMENT

CHILDREN'S HOSPITAL 2

Thân thiện như chính ngôi nhà của bạn

Target Audience

This article is intended for primary care clinicians and other specialists who care for infants of mothers who are HBV carriers.

Thân thiện như chính ngôi nhà của bạn

Goal

The goal of this activity is to provide medical news to primary care clinicians and other healthcare professionals in order to enhance patient care.

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

Breast-feeding after proper immunoprophylaxis did not contribute to mother-to-child transmission (MTCT) of hepatitis B virus (HBV), according to the results of a meta-analysis and systematic review reported online May 2 in the *Archives of Pediatrics & Adolescent Medicine*.

Mothers With HBV May Breast-Feed After Immunoprophylaxis

"Presently, the WHO, the World Gastroenterology Organisation, and the CDC recommend joint immunoprophylaxis using hepatitis B vaccine (HBVac) and hepatitis B immunoglobulin...at birth to interrupt HBV transmission during and after delivery from HBV-carrying mothers to their newborns," write Zhongjie Shi, MD, from the Third Affiliated Hospital of Sun Yat-sen University in Guangzhou, China, and colleagues. "However, these recommendations are aimed at the general HBV-carrying population, most of whom have very low HBV infectiousness (HBV DNA undetectable).... This meta-analysis evaluated the role of breastfeeding in HBV MTCT at 6 to 12 months after birth."

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

Using published and unpublished data from January 1, 1990, to August 31, 2010, the reviewers constructed a database from MEDLINE, EMBASE, Cochrane Library, National Science Digital Library, and China Biological Medicine Database, as well as from information provided by appropriate experts. All included studies were peer reviewed and met predefined selection criteria, with study endpoints including HBV intrauterine infection, MTCT, maternal blood and breast milk infectiousness, infant immunoprophylaxis methods and response, and adverse events. Odds ratios (ORs) and 95% confidence intervals (CIs) were obtained using the Mantel-Haenszel fixed-effects model.

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

The meta-analysis included 10 qualified studies, all of which were clinical controlled trials, enrolling a total of 751 infants who were breast-feeding, and 873 who were not breast-feeding.

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

For the breast-feeding group compared with the non-breast-feeding group, the OR of MTCT of HBV, as reflected in infant peripheral blood hepatitis B surface antigen or HBV DNA positivity at age 6 to 12 months, was 0.86 (95% CI, 0.51 - 1.45; from 8 clinical controlled trials, *P* = .56; *I* 2 = 0%, *P* = .99). For the breast-feeding group compared with the non-breast-feeding group, the OR of development of hepatitis B surface antibodies, as indicated by infant peripheral blood hepatitis B surface antibody positivity at age 6 to 12 months, was 0.98 (95% CI, 0.69 - 1.40; from 8 clinical controlled trials, *P* = .93; *I* 2 = 0%, *P* = .99). There were no apparent adverse events or complications associated with breast-feeding.

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

Limitations of this study include searching only for studies published in English or Chinese, which could result in selection bias.

Mothers With HBV May Breast-Feed After Immunoprophylaxis

"To more thoroughly evaluate the role of breastfeeding in HBV MTCT, more randomized controlled trials or [clinical controlled trials] with detailed breast milk HBV marker testing and larger size are needed for further investigations and more convincing results," the study authors write. "In summary, our meta-analysis provides strong evidence that without cracked or bleeding nipples or lesions, breast-feeding did not contribute to MTCT of HBV after proper immunoprophylaxis in the infants and should be recommended as a valuable source of nutrition to infants."

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

- More than 2 billion people worldwide have evidence of past or current HBV infection, and 350 million are chronic HBV carriers. Almost half of these cases are the result of MTCT, including vertical and horizontal transmission. There are still controversies about the effect of breast-feeding on HBV infection transmission from mother to infant in immunized infants.

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

- This is a meta-analysis and systematic review of prospective studies to determine the role of breast-feeding on MTCT of HBV infection from mothers who are HBV carriers.

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

- The databases of MEDLINE, EMBADSE, Cochrane Library, Natural Science Digital Library, and China Biological Medicine Database were searched for articles from 1990 to 2010.
- 2 independent reviewers assessed the articles for inclusion criteria and quality.
- Included were studies in which descriptions were provided of HBV intrauterine infection, MTCT, newborn immunoprophylaxis, breast-feeding, and follow-up of at least 1 month.

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

- Mothers in the studies were HBV carriers who were asymptomatic with hepatitis B surface antigen positivity, and their infants all received scheduled hepatitis B immune globulin or HBVac immunoprophylaxis within 24 hours of birth.
- Breast-feeding and non-breast-feeding mother–infant pairs were studied.
- Breast-feeding would have been paused for cracked or bleeding nipples or exudates until recovery.

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

- Primary outcomes were hepatitis B surface antigen production in response to immunoprophylaxis in infants and hepatitis B surface antibody status at 6 to 12 months.
- Secondary outcomes were HBV intrauterine and delivery infection, maternal markers of HBV infection, and milk markers of HBV infection.

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

- 10 studies met eligibility criteria, of which 8 were clinical controlled trials conducted in China.
- 8 clinical controlled trials investigated the role of breast-feeding on HBV status after infants received immunoprophylaxis with hepatitis B immune globulin and HBVac, and 3 examined outcomes after only HBVac.
- There were a total of 751 infants in the breast-feeding and 873 in the non-breast-feeding groups.
- The effect of breast-feeding on MTCT of HBV was analyzed in 2 categories: effect on infant surface antigen and DNA positivity, and effect on surface antibody positivity within 6 to 12 months.

Mothers With HBV May Breast-Feed After Immunoprophylaxis

- Analysis was also conducted for infants with both forms of prophylaxis and for those with only 1 method of prophylaxis.
- In the breast-feeding group there were 31 positive cases among 637 patients vs 33 cases among 706 patients in the non-breast-feeding group for HBV positivity by surface antigen and DNA (OR, 0.86; not significantly different).
- In infants with only HBVac prophylaxis, there were 6 of 114 cases in the breast-feeding vs 9 of 167 cases in the non-breast-feeding group, with an OR of 0.95 (not significantly different).

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

- The OR for infants exposed to infectious milk was 1.10 (*P* = .68, not significantly different).
- Similarly, for hepatitis B surface antibody status at 6 to 12 months, the OR was 0.98 for the breast-feeding vs the non-breast-feeding group (not significantly different).
- Among infants who received only HBVac, the OR was 0.88 (not significantly different) compared with the non-breast-feeding group.

Mothers With HBV May Breast-Feed After Immunoprophylaxis

- In infants who were fed with infectious breast milk, the OR was 0.64 (*P* = .75, not significantly different).
- The authors concluded that in infants who were immunized within 24 hours of birth, breast-feeding was not associated with increased MTCT of HBV infection.

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

Clinical Implications

- Breast-feeding does not increase the rate of hepatitis B surface antigen positivity within 6 to 12 months among infants with immunoprophylaxis within 24 hours of birth.
- Breast-feeding does not increase rate of hepatitis B surface antigen positivity among infants with immunoprophylaxis within 24 hours of birth.

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

The HBV-carrying mother of a newborn infant who has received immunoprophylaxis asks whether breast-feeding would increase the risk for transmission of HBV to her infant. Which of the following is the *most* appropriate response?

A. MTCT risk is increased if only 1 form of immunoprophylaxis was given to her infant

B. MTCT risk is increased even with both forms of immunoprophylaxis

C. MTCT is not increased if her infant received at least 1 form of immunoprophylaxis

D. MTCT is increased if her milk is infectious for HBVw reported online May 2 in the *Archives of Pediatrics & Adolescent Medicine*.

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

Which of the following *best* describes hepatitis B surface antibody status 6 to 12 months after birth in infants of HBV-carrying mothers who receive immunoprophylaxis within 24 hours of birth and who were breast-fed vs not breast-fed?

A. Increased risk for positivity
B. Decreased risk for positivity
C. No increase in risk for positivity
D. Increased risk for positivity if breast milk is infectious for HBV

Mothers With HBV May Breast-Feed After Immunoprophylaxis

Which of the following *best* describes hepatitis B surface antibody status 6 to 12 months after birth in infants of HBV-carrying mothers who receive immunoprophylaxis within 24 hours of birth and who were breast-fed vs not breast-fed?

A. Increased risk for positivity
B. Decreased risk for positivity
C. No increase in risk for positivity
D. Increased risk for positivity if breast milk is infectious for HBV

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

The HBV-carrying mother of a newborn infant who has received immunoprophylaxis asks whether breast-feeding would increase the risk for transmission of HBV to her infant. Which of the following is the *most* appropriate response?

Answer: MTCT is not increased if her infant received at least 1 form of immunoprophylaxis

In this systematic review and meta-analysis of clinical trials, in the breast-feeding group there were 31 positive cases among 637 patients vs 33 cases among 706 patients in the non-breast-feeding group for HBV positivity by surface antigen and DNA (OR, 0.86; not significantly different).

In infants with only HBVac prophylaxis there were 6 of 114 cases in the breast-feeding vs 9 of 167 patients in the non-breast-feeding group with an OR of 0.95 (not significantly different).

The OR for infants exposed to infectious milk was 1.10 (P = .68, not significantly different).

Thân thiện như chính ngôi nhà của bạn

Mothers With HBV May Breast-Feed After Immunoprophylaxis

Which of the following *best* describes hepatitis B surface antibody status 6 to 12 months after birth in infants of HBV-carrying mothers who receive immunoprophylaxis within 24 hours of birth and who were breast-fed vs not breast-fed?

Answer: No increase in risk for positivity

For hepatitis B surface antibody status at 6 to 12 months the OR was 0.98 for the breast-feeding vs the non-breast-feeding group (not significantly different).

Among infants who received only HBVac, the OR was 0.88 (not significantly different) compared with the non-breast-feeding group. In infants who were fed with infectious breast milk, the OR was 0.64 (*P* = .75, not significantly different).

Thanks for your attention