INFECTION PAR LE Virus de l'Hépatite B (VHB) ET GROSSESSE

Société Camerounaise d'Hépato gastro entérologie

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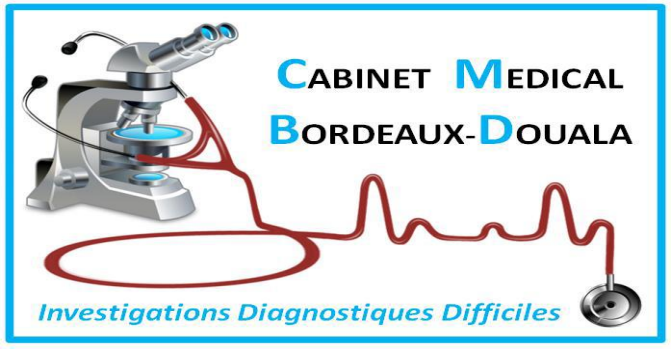
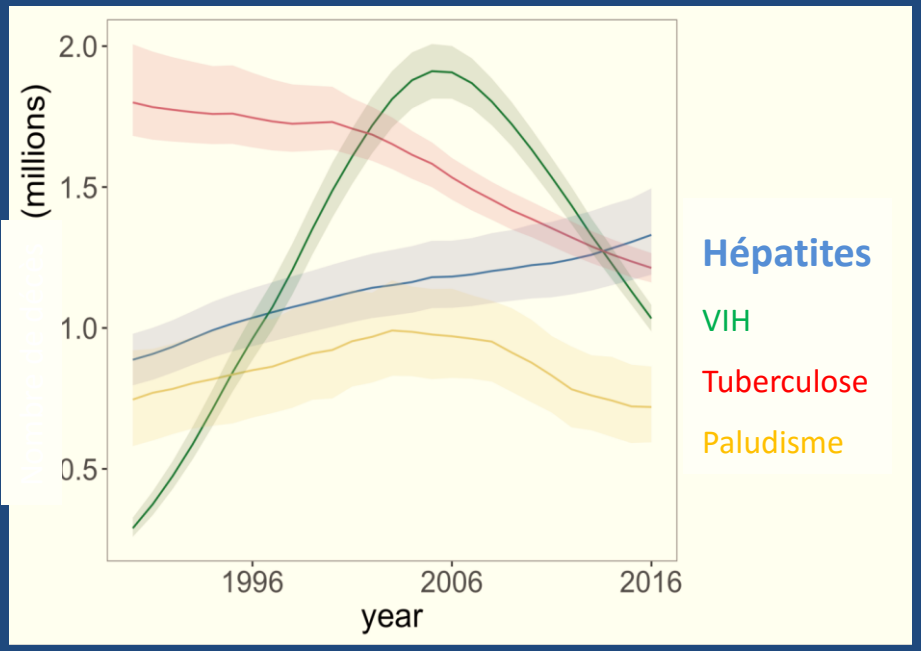


HEPATITES VIRALES – MORTALITE SPECIFIQUE

Nombre de décès dans le monde
entre 2000 et 2016



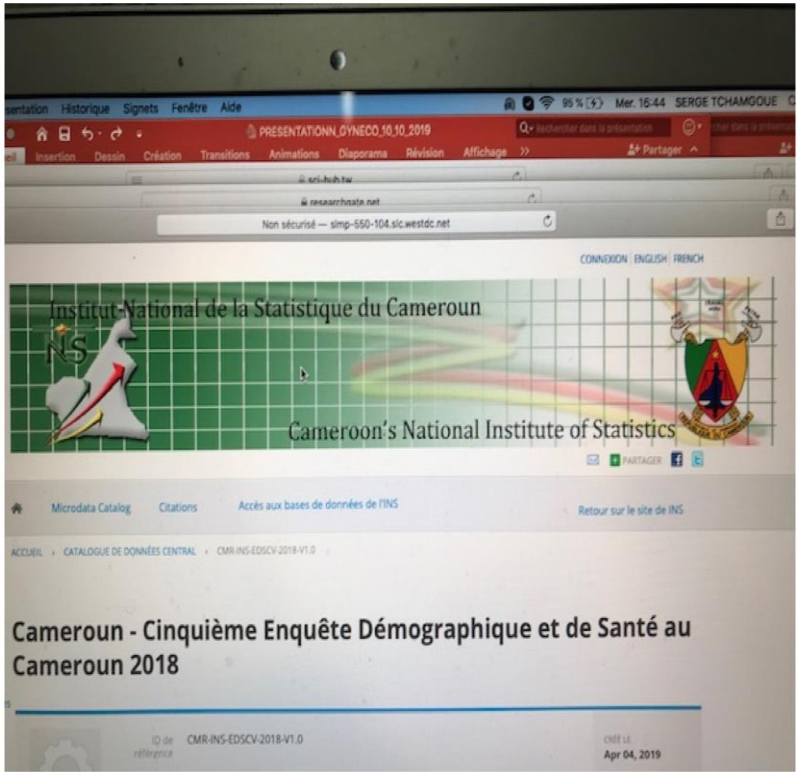
7ème cause de décès dans le monde en 2013
47 % liés au virus B et 48 % liés au virus C

Données de l'OMS : organisation mondiale de la santé

CAMEROUN: SEROPREVALENCE VHB en 2011

11,9 % (IC95% : 11% - 12,8%)

Epidémiologie des hépatites virales B, C, et delta au Cameroun : analyse des échantillons de l'Enquête Démographique de Santé 2011 (EDS Hépatites virales). Projet ANRS 12289 (Dr R. Njouom)



Hépatite B en 2018, Cameroun

Cancer primitif du foie chez sujets jeunes+++

- Age moyen 45,5 ans
- Sur foie sain dans 44 % de cas
- VHB 48 % de cas
- Virémie faible < 2000UI/ml
- Diagnostic tardif, pronostic défavorable

Cirrhose

- 10 % des sujets avec hépatite chronique B asymptomatique
- VHB 65 % de cas

EPIDEMIOLOGIE VHB FEMMES ENCEINTES CAMEROUN

- 959 femmes enceintes
- Yaoundé -2012
- Prévalence AgHBs : 7,7%
- Vaccination VHB antérieure : 2,7%
- Connaissance antérieure statut VHB + : 5,4%

Fomulu *et al. BMC Pregnancy and Childbirth* 2013, **13**:158
http://www.biomedcentral.com/1471-2393/13/158

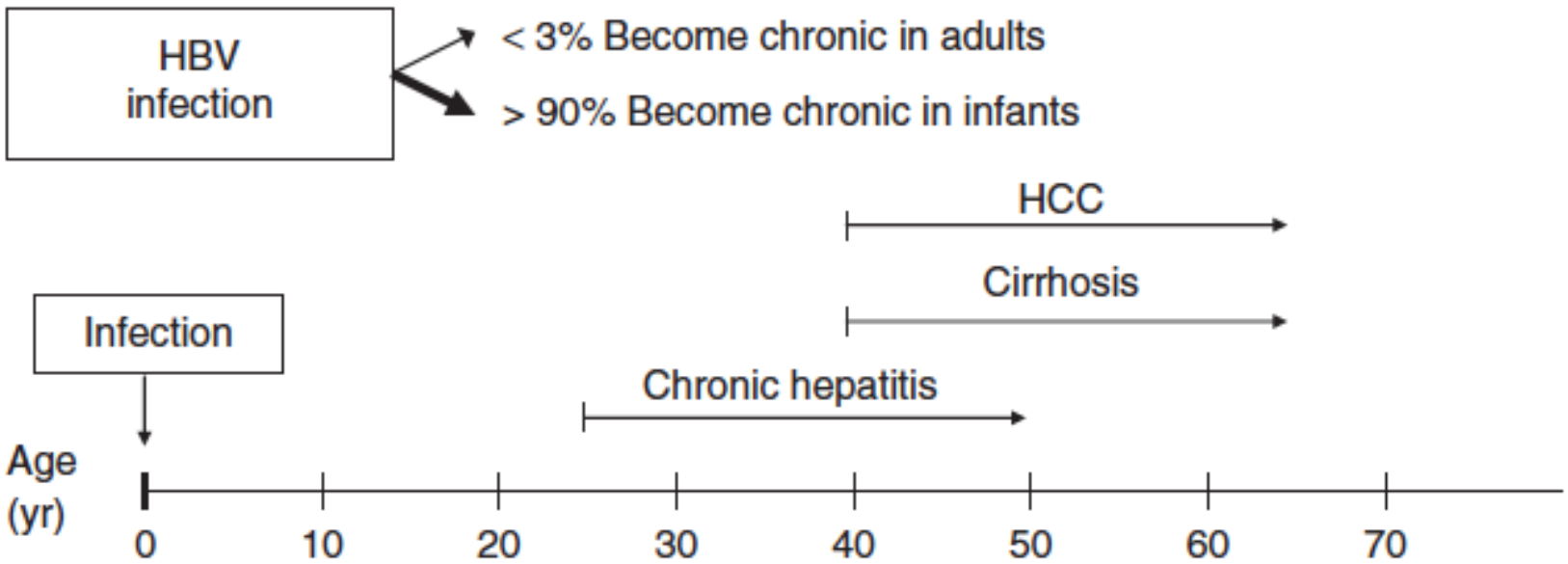
BMC Pregnancy & Childbirth

RESEARCH ARTICLE Open Access

Prevalence, correlates and pattern of Hepatitis B among antenatal clinic attenders in Yaounde-Cameroon: is perinatal transmission of HBV neglected in Cameroon?

Nelson J Fomulu[1,2], Frederick LI Morfaw[1,3*], Judith N Torimiro[3], Philip Nana[1], Mve V Koh[4] and Takang William[4]

CONTAMINATION PRE, PERI, et Post Natale



Hepatology Research 2007; 37 (Suppl. 2): S101–S105 doi: 10.1111/j.1872-034X.2007.00170.x

Hepatocellular carcinoma in Taiwan

Ding-Shinn Chen

Department of Internal Medicine, National Taiwan University College of Medicine and Hepatitis Research Center, National Taiwan University Hospital, Taipei, Taiwan

TRANSMISSION INTRA UTERINE VHB

• BRIEF REPORTS •

Mechanism of intrauterine infection of hepatitis B virus

Shu-Lin Zhang, Ya-Fei Yue, Gui-Qin Bai, Lei Shi, Hui Jiang

World J Gastroenterol 2004;10(3):437-438
World Journal of Gastroenterology

METHODS: HBV DNA was detected in vaginal secretion and amniotic fluid from 59 HBsAg-positive mothers and in venous blood of their newborns by PCR. HBsAg and HBcAg in placenta were determined by ABC immunohistochemistry.

RESULTS: The rate of HBV intrauterine infection was 40.1% (24/59). HBV DNA was detected in 47.5% of amniotic fluid samples and 52.5% of vaginal secretion samples respectively.

HBsAg and HBcAg were detected in placentas from HBsAg-positive mothers. The concentration of the two antigens decreased from the mother's side to the fetus's side, in the following order: maternal decidual cells > trophoblastic cells > villous mesenchymal cells > villous capillary endothelial

Transmission Intra U VHB corrélée au Niveau de la Charge virale VHB maternel

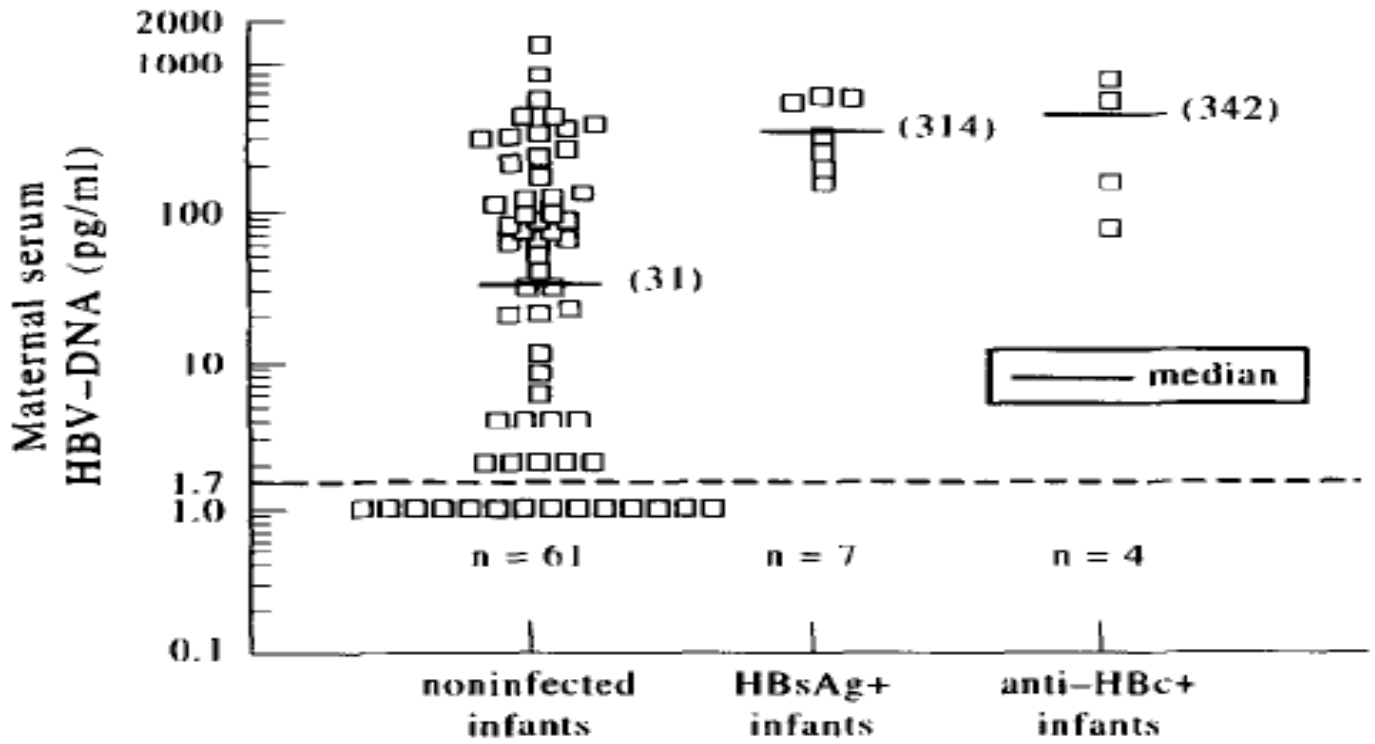


Figure 2 Maternal HBV DNA levels of seven chronic HBV infected infants, four inapparent HBV infected infants and of 61 non-infected infants. Cut-off level of HBV DNA assay is 1.7 pg ml^{-1}

Vaccine, Vol. 15, No. 15, pp. 1624–1630, 1997

EPIDEMIOLOGIE - TRANSMISSION

- Prévalence Cameroun : **12%**
- Contamination :
  - Mais 10 fois plus contagieux que VHC et 100 fois plus contagieux que le VIH
  - **SALIVE ++++++**
  - SEXE ++
  - SANG ++
  - Mère – Enfants ++++

Histoire naturelle Hépatite virale

Hépatite Chronique

20-30 ans

Cirrhose

5- 10 ans

Cancer du foie

1-2 ans

Mort

Alcool +++
VIH/Sida
Obésité
Stade fibrose
Sexe Masculin

LE FOIE EN BOUT DE COURSE !!!!

TRAITEMENT VIRUS HEPATITE B

- **Pas de guérison** mais contrôle prolongé de la multiplication du virus
  - Soit par Défenses Immunitaires
  - Soit par les médicaments
- Traitement Oral par Tenofovir : 1 cp par jour. Durée prolongée (des années) et indéterminée

VHB et SYSTÈME IMMUNITAIRE

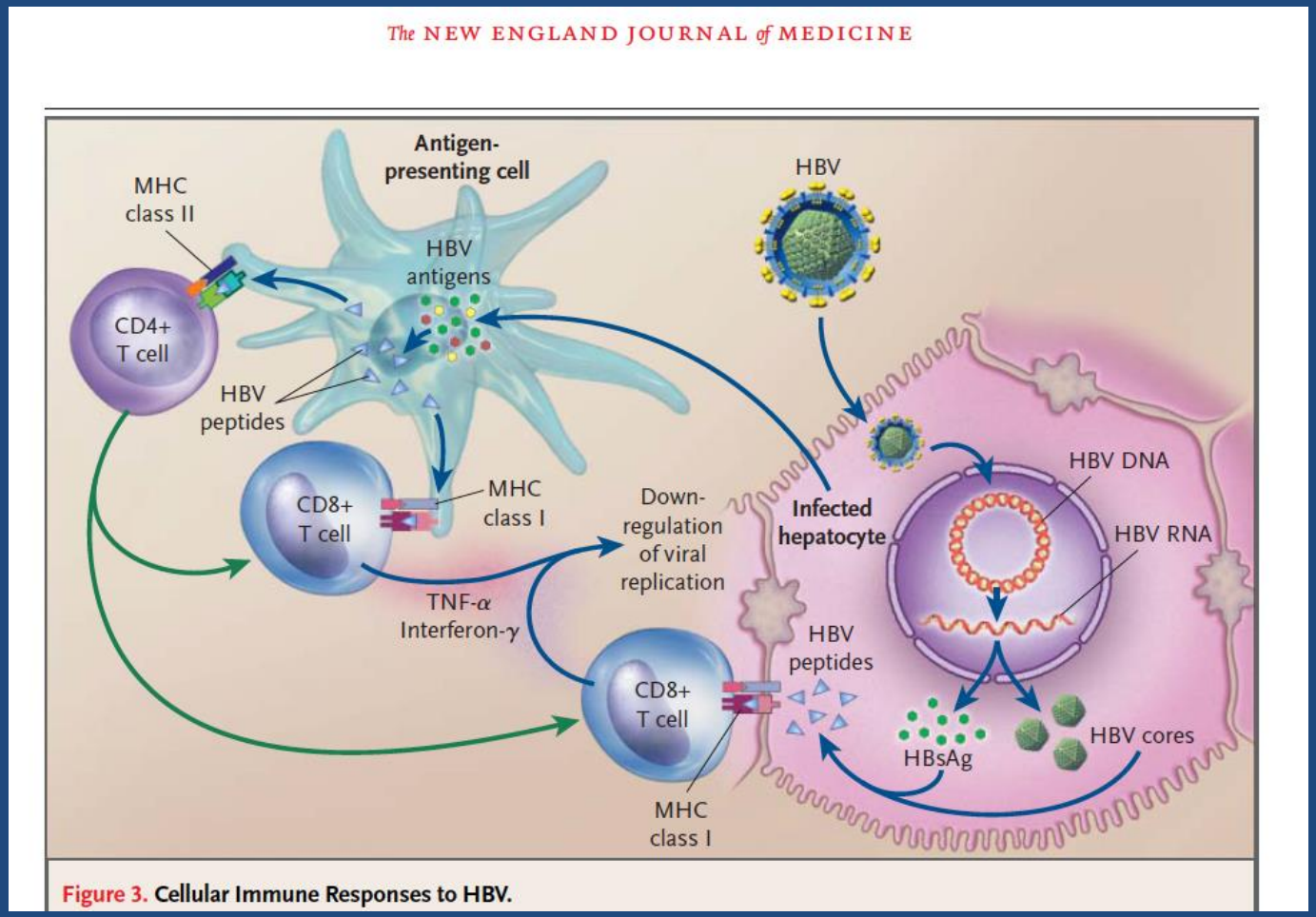


Figure 3. Cellular Immune Responses to HBV.

Réactivation VHB pendant grossesse

Symptomatic reactivation of hepatitis B in pregnancy

THE LANCET VOL 337: FEB 9, 1991

HEPATITIS B MARKERS AND ALT CONCENTRATIONS

Date	ALT (IU/l)	HBsAg subtype	HBeAg/ anti-HBe	Anti-HBc IgM	HBV DNA (pg/40µl)
Dec 2, 1988	5	ay	Anti-HBe	Neg	. .
April 27, 1989	1452	ay	HBeAg	Neg	53
May 5	458	. .	Anti-HBe	Neg	2
May 25	168	. .	. .	Neg	Neg
Sept 5	11	. .	Anti-HBe	. .	6
Nov 15	8	ay	Anti-HBe	. .	. .
Jan 17, 1990	9	. .	Anti-HBe	Neg	3
June 22	83	. .	. .	. .	Neg
Sept 14	28	. .	. .	. .	16

ALT normal range 10–40 IU/l HBsAg, anti-HBe, and anti-HBc IgM measured by ELISA (Abbott) Sensitivity of HBV-DNA assay is 2 pg/40 µl

A 25-year-old Nigerian woman, resident in the UK for 2 years, was found to be HBsAg positive, HBeAg negative, and anti-HBe positive in December, 1988, during a routine antenatal virus screen during her first pregnancy. The date of her last menstrual period was Sept 6, 1988. She was in good health, and had no history of transfusions or jaundice. Physical examination and hepatic enzymes were normal.

In April, 1989, she presented with increasing pruritus, and jaundice developed a few days later. Her pregnancy, which was now in the third trimester (33 weeks) was progressing well. Serological

Hépatite fulminante au cours grossesse

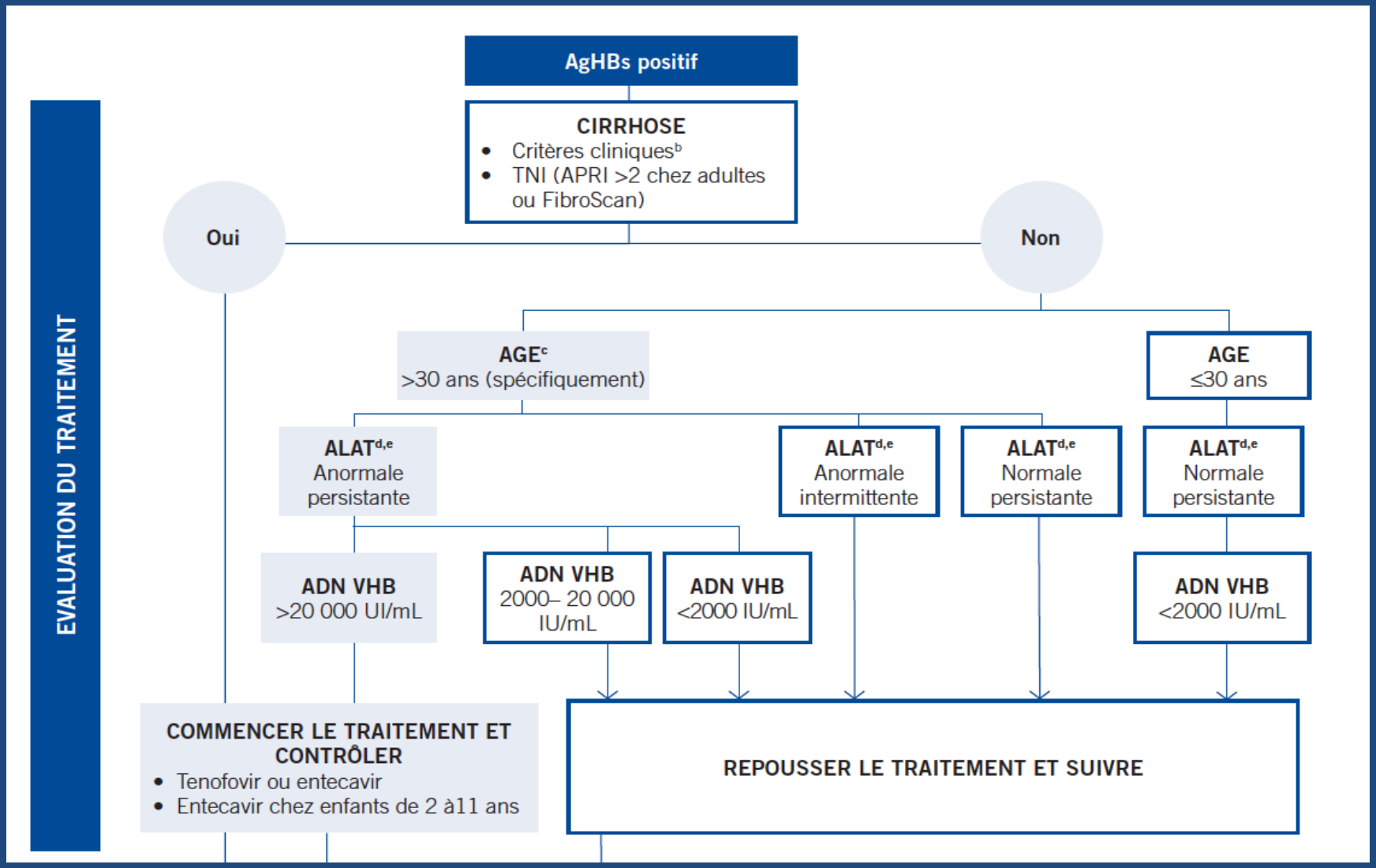
• CASE REPORT •

Pregnant woman with fulminant hepatic failure caused by hepatitis B virus infection: A case report

Yue-Bo Yang, Xiao-Mao Li, Zhong-Jie Shi, Lin Ma

World J Gastroenterol 2004;10(15):2305-2306
World Journal of Gastroenterology

RECOS OMS 2015



FEMME ENCEINTE – EASL 2017

Pregnant women with CHB and advanced fibrosis or cirrhosis, therapy with TDF is recommended (Evidence level II-2, grade of recommendation 1).

In all pregnant women with high HBV DNA levels (>200,000 IU/ml) or HBsAg levels >4 $\log_{10}$ IU/ml, antiviral prophylaxis with TDF should start at week 24–28 of gestation and continue for up to 12 weeks after delivery (Evidence level 1, grade of recommendation 1).

Breast feeding is not contraindicated in HBsAg-positive untreated women or on TDF-based treatment or prophylaxis (Evidence level III, grade of recommenda-

HBV – Réponse aux traitements

Table 3. Results of main studies for the treatment of HBeAg-positive chronic hepatitis B at 6 months following 48 or 52 weeks of pegylated interferon alfa (PegIFNα) and at 48 or 52 weeks of nucleos(t)ide analogue therapy.

	PegIFN		Nucleoside analogues			Nucleotide analogues		
	PegIFNα2a	PegIFNα2b	LAM	TBV	ETV	ADV	TDF	TAF
Dose*	180 µg	100 µg	100 mg	600 mg	0.5 mg	10 mg	245 mg	25 mg
Anti-HBe-seroconversion	32%	29%	16–18%	22%	21%	12–18%	21%	10%
HBV DNA <60–80 IU/ml	14%	7%	36–44%	60%	67%	13–21%	76%	64%
ALT normalisation#	41%	32%	41–72%	77%	68%	48–54%	68%	72%
HBsAg loss	3%	7%	0–1%	0.5%	2%	0%	3%	1%

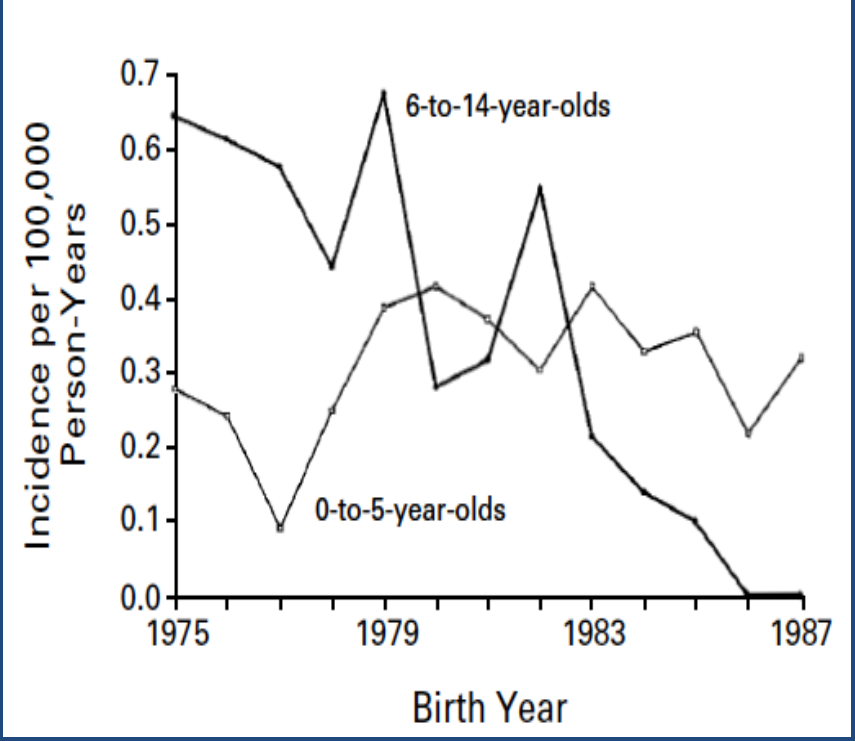
VACCIN Enfant né de Mère AgHbs +

UNIVERSAL HEPATITIS B VACCINATION IN TAIWAN AND THE INCIDENCE OF HEPATOCELLULAR CARCINOMA IN CHILDREN

MEI-HWEI CHANG, M.D., CHIEN-JEN CHEN, SC.D., MEI-SHU LAI, M.D., HSU-MEI HSU, M.P.H., TZEE-CHUNG WU, M.D., MAN-SHAN KONG, M.D., DER-CHERNG LIANG, M.D., WEN-YI SHAU, M.D., AND DING-SHINN CHEN, M.D., FOR THE TAIWAN CHILDHOOD HEPATOMA STUDY GROUP*

The New England Journal of Medicine

1858 · June 26, 1997



Perinatal transmission of HBV can be prevented by HBV vaccination in 75–80% of cases if given within 24 h of birth.

VACCIN + Immunoglobulines à la naissance

Ten-year neonatal hepatitis B vaccination program, the Netherlands, 1982–1992: protective efficacy and long-term immunogenicity

Vaccine, Vol. 15, No. 15, pp. 1624–1630, 1997

In the setting of our program, with the use of licensed vaccine and adequate dosage of HBIg, the single clinically relevant factor that did influence the PER was the level of serum HBV DNA of the mother at the time of delivery. PER in groups of infants with maternal HBV DNA levels <150 pg ml^{-1} was 100%, but only 68% for the group with a maternal HBV DNA level of ≥ 150 pg ml^{-1}.

At month 12, the protective efficacy rate (PER) of passive–active immunization for the 114 infants of HBsAg- and HBeAg-positive mothers was 90%

P.E.R.=PROTECTIVE EFFICACY RATE

Suivi Maternel : RECHERCHE
COMPLICATIONS

- FOIE
  - **Cancer** ? = Echographie du foie : 29 000 FCFA
  - **Cirrhose =** Fibrose sévère. Fibroscaner : 49 000 FCFA

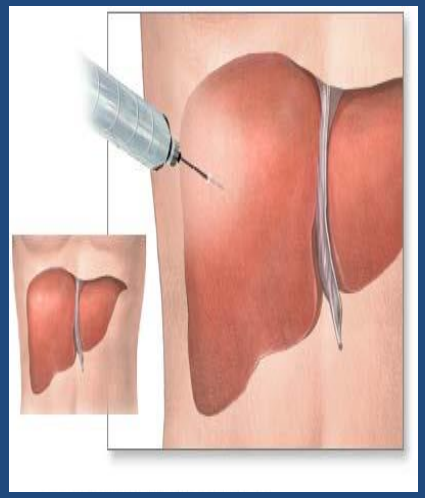
Diagnosis of cirrhosis (F - score)

- **Non invasive**
- Fibroscan ou Elastométrie]

  Robic et al, J Hepatol 2011;55, Vergniol et al,
- FibroTest ……

  Naveau et al Hepatology 2009;49: 97)
- **APRI** ,FIB- 4 …… *Nunes ,et al*

  Am J Gastroenterol 2010;105



VHB : MARQUEURS SEROLOGIQUES

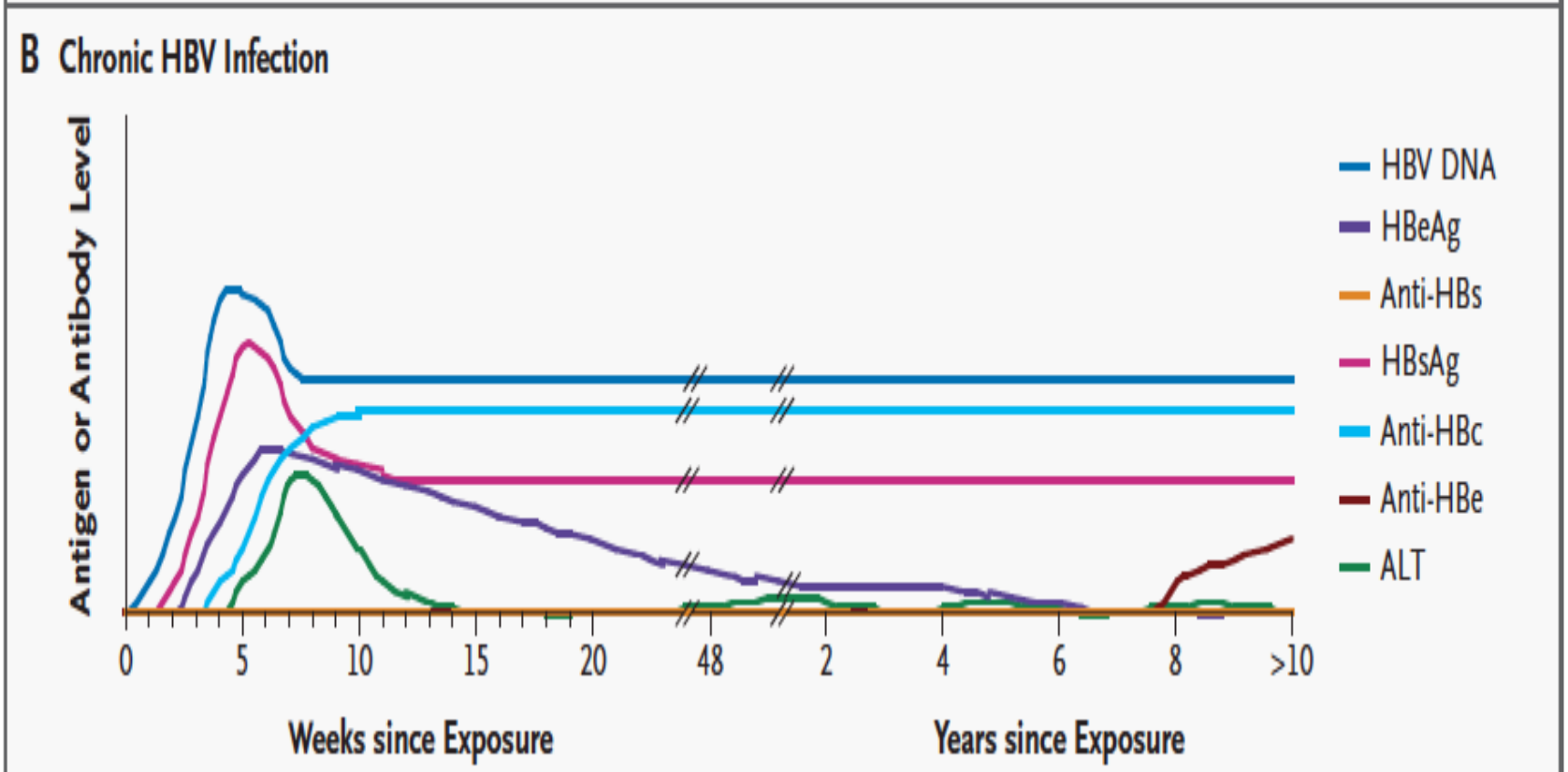


Figure 4. Patterns of Serologic and Molecular Markers in HBV Infection.

DEPISTAGE PREVENTION

- VACCINATION EFFICACE DES SUJETS SERONEGATIFS +++++++++++++++
  - Dès la naissance pour mère VHB + Immunoglob
  - Toute la population : femmes âge procréation
  - TROIS doses de vaccin :
    - M0, M1, M6
    - Protection : 95%
    - Prix : 5000 FCFA la dose.

CO-INFECTION VIH-VHB

DOUBLE DOSE VACCIN VHB chez le Co-infecté VIH-VHB

Does increased hepatitis B vaccination dose lead to a better immune response in HIV-infected patients than standard dose vaccination: a meta-analysis?

J D Ni MD*, **Y Z Xiong** BS†, **X J Wang** MS* **and L C Xiu** MS*

*Department of Epidemiology and Biostatistics; †Department of Educational Administration, Guangdong Medical College, Dongguan, People's Republic of China

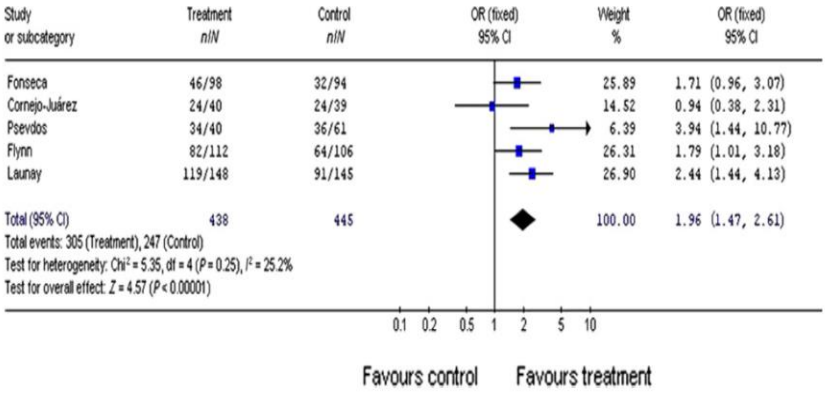


Figure 1 Odds ratios (OR) and 95% CIs of individual studies and pooled OR from the fixed-effects model for response rates of the increased dose vaccination compared with standard dose vaccination in HIV-infected patients in this meta-analysis

CO-INFECTION VHB-VHD (DELTA)

« TAKE HOME MESSAGES »

- Dépistage VHB femmes enceintes
- Charge virale VHB
- Traitement Tenofovir à 24 semaines
- Vaccin + Immunoglobulines enfants
- Suivi longitudinal femmes AgHbs + et enfants
- Coopération interdisciplianires : Gynéco/Pédiatres/Infectiolgues/Hépato-gastroenterologues.

MERCI POUR VOTRE ATTENTION