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COMPARISON OF THE EFFICIENCY AND SAFETY AALBENDAZOLE AND PRAZIQUANTEL IN THE TREATMENT OF CYSTICERCOSIS

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Abstract

Albendazole is one of the drugs indicated for the treatment of cysticercosis, however, data on the efficacy and safety of this drug in Vietnam have been scarce.

Objectives: To study the efficacy and safety of albendazole used for the treatment of cysticercosis.

Methods: patients with cysticercosis were treated by albendazole according to the regime issued by the Ministry of Health and evaluated after each episode and 6 months later.

Results: This study involved sixty patients with the mean age of 50.17 ±10.03 years old and the majority was men (90.0%). The most common symptoms were headache (90.0%), convulsions (68%) followed by other symptoms such as fainting, memory loss, limb numbness... The rate of clinically complete and partial cures was 48.3% and 51.7%. The rate of complete, partial or no resolution of brain cysts were 43.3%; 51.7% and 5.0%. The rate of overall treatment results was 33.3% cured, 61.7% improvement and 5% did not. Overall, 33.3% of patients were considered a complete resolution, 61.7% were partial resolution and 5% were a failure. The location of the cyst (cortical/subcortical or cerebral hemisphere) did not affect the treatment outcome. Clinical follow-up of the patients did not notice any side effects after the treatment. There was an increase in the proportion of elevated liver enzymes but no abnormality in blood urea and creatinine was reported.

Reviewer

Assoc. Prof. Le Xuan Hung PhD

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COMPARISON OF THE EFFICIENCY AND SAFETY OF ALBENDAZOLE AND PRAZIQUANTEL IN THE TREATMENT OF CYSTICERCOSIS

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Tran Quang Phuc¹**

¹ *National Institute of Malariology, Parasitology and Entomology*

² *Viet Xo Hospital*

Abstract

Two drugs recommended to treat cysticercosis (ATSL) are albendazole and praziquantel, however, there have been few studies comparing these two drugs in Vietnam. Objective: To compare the efficacy and safety of albendazole and praziquantel in the treatment of ATSL. Methods: 120 patients with ATSL having similar clinical characteristics were grouped for treatment by albendazole or praziquantel according to the guidelines of the Ministry of Health. The evaluation was done 6 months after the treatment. Results: The clinically cure and improvement rates were 61.7% and 38.3%. On MRI, the rates of complete, partial cure and inefficacy were 65%, 30.8% and 4.2% respectively. The treatment achieved a cure rate of 51.7%, an improvement rate of 44.2% and an inefficacy rate of 4.2%. Praziquantel was more efficacious than albendazole in clinical, MR imaging and final outcome. The studied patients did not show any abnormalities in levels of urea or creatinine. The patients receiving praziquantel had an increase of GPT abnormalities only after the third course. The patients taking albendazole had an increase in liver enzymes after all treatment courses. The rate of liver enzyme elevation was higher in the albendazole group than in the praziquantel group. Conclusion: praziquantel is more effective and safer than albendazole in the treatment of ATSL.

Reviewer

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**ANOPHELES SPECIES COMPOSITION, BITING ACTIVITY AND
MALARIA TRANSMISSION ROLE OF VECTORS IN EA SO COMMUNE,
EAKAR DISTRICT, DAK LAK PROVINCE, 2021**

Pham Van Quang, Nguyen Quang Thieu, Tran Thanh Duong, Vu Viet Hung

Nguyen Anh Tuan, Tran Thi Huyen, Nguyen Van Dung

National Institute of Malariology, Parasitology and Entomology

Abstract

A cross-sectional study aimed to describe the composition, biting activity, and transmission role of malaria vectors in May and December 2021 in Ea So commune, Ea Kar district, Dak Lak province. The routine mosquito collection methods were deployed including an outdoor human double net trap (24hours) and indoor CDC light trap. The results showed that 5 Anopheles species were identified among 188 cached mosquitoes in Ea so commune. The major vector, An. dirus was collected in forest fringe and deep forest accounted for 35.71% and 96.56%, respectively. The much higher density of An. dirus presented in December than in May ($p < 0,01$). The biting activity of An. dirus began from 1700h pm to 0400h, with one clear peak between 1800h to 1900h, the mosquito density decreased rapidly after 2400h. The proportion of An. dirus collected from 1700h – 2400h was 90.68% and from 2400h – 0600 was only 9.32% in the deep forest. The rate of Plasmodium vivax- infected An. dirus was 0.58%.

Keywords: Malaria vector, biting activity, malaria transmission role.

Reviewer

Assoc. Prof. HO Dinh Trung PhD

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CLINICAL MANIFESTATIONS, SUBCLINICAL CHARACTERISTICS AND COMPLICATIONS OF MEASLES IN PREGNANT WOMEN: A RETROSPECTIVE STUDY IN VIET NAM

**Thu Nguyen Kim¹, Thang Dao Van^{2,3}, Son Vu Tung², Dung Tran Thi¹,
Hoai Nguyen Thi², Nam Le Van^{2,3}, Binh Do Nhu^{2,4}**

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²*Vietnam Military Medical University, ³Department of Infectious Disease, Military Hospital 103, ⁴Division of Military Science, Military Hospital 103*

Abstract

Measles outbreaks still represents a serious public health problem in developing countries. There are few reports of measles in pregnant women in the contemporary literature. The study aimed to describe clinical features subclinical findings and complications of hospitalized measles pregnancy women in Vietnam, in comparison with non-pregnancy women.

All pregnant women hospitalized with measles at the National Hospital for Tropical Diseases, Ha Noi, Northern Vietnam from July 2015 to June 2020 were included. Demographic, clinical manifestations, laboratory findings, and complications data were analyzed.

Of 98 hospitalized women, the mean time before the rash eruption and that of symptoms before hospital admission in the group of pregnant women were 3.5 and 4.0 days, which were lower than those of the non-pregnant women group with 4.1 and 4.8 days ($p = 0.009$ and $p = 0.004$, respectively). Measles rash in the pregnant women group was higher than that of the non-pregnant group with (87.8% vs. 81.6%; $p > 0.05$). The data of Koplic spot in pregnant women with measles was 34.7% and that of cough symptom was 85.7%. Corresponding in non-pregnant female patients were 28.6% and 83.7%, respectively ($p < 0.05$). The mean CRP value in the pregnant group was higher than that of the non-pregnant group (54.1 mg/L versus 26.9 mg/L, $p < 0.05$). The percentage of pregnant women infected with measles with respiratory complications was higher than that of no-pregnancy women (65.3% vs. 44.9%, $p = 0.042$). The CRP value ≥ 94.5 mg/l was associated with pneumonia in pregnant women infected with measles ($p < 0.05$; OR 31.2, 95% CI: 2.9 – 337.4).

Pneumonitis was the most common complication in pregnant women with measles when compared to non-pregnant women. The level of CRP in combination with other subclinical findings was also a vital marker in predicting complications of pregnancy with measles disease.

Keywords: measles, complications, pneumonitis, Koplic spot, pregnancy women

**COMPARISON POTENCY ASSAY METHODS AS PLAQUE FORMING
UNIT (PFU) AND CELL CULTURE INFECTIOUS DOSE 50% (CCID₅₀) OF
THE CANDIDATE NATIONAL REFERENCE STANDARD MEASLES
VACCINE**

Pham Van Hung

National Institute for Control of Vaccine and Biological (NICVB)

Abstract

A comparative study of two methods (PFU and CCID₅₀) for potency determination for the national standard candidate measles vaccine was organized at the National Institute for Control of Vaccines and Biologicals (NICVB). Two methods are performed on the groups of candidate National Reference Standard measles vaccine derived from AIK-C strain stored at different temperatures: -70°C, 40°C/7 days, 37°C/7 days. The results show that although there is a difference, strong correlation exists between the two methods CCID₅₀ and PFU with $R^2=0,886$, $r = 0,94$, coefficient $PFU/CCID_{50} = 1.28$ equivalent to the ratio $PFU: CCID_{50} = 1:0.78$.

Key word: PFU and CCID₅₀ Methods, Measles vaccine titre (potency), National Reference Standard Measles Vaccine.

**EVALUATION OF THE LEVEL RESIDUAL H5N1 ANTIBODY RESULTS AND
EPIDEMIOLOGICAL CHARACTERISTICS INVOLVED ON THE
VOLUNTEER GROUP IN NHA TRANG**

Pham Van Hung¹, Duong Huu Thai²

¹ National Institute for Control of Vaccines and Biological

² Institute of Vaccine and Biological

Abstract

We conducted descriptive longitudinal follow-up and uncontrolled studies performed on 185 subjects who received 2 doses of 15µg IVACFLU-A / H5N1 vaccine 21 days apart to determine persistent of antibody-H5N1 and some Epidemiological characteristics involved, the results showed that: 18 months after IVACFLU-A/H5N1 vaccination, the rate of antibody protection (titre $\geq 1/40$) still reached 61.6%; GMTs of the injection group reached 49.2. No statically differences on age, gender and epidemiological characteristics related persistent of anti-H5N1 antibody after vaccination. The research is still ongoing until 36 months after vaccination.

Key words: Residual H5N1 antibodies; IVACFLU-A/H5N1 vaccine

Reviewer

Assoc. Prof. Le Xuan Hung PhD

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DETERMINING THE PATHOGENS OF NEONATAL SEPSIS AT THE NATIONAL CHILDREN'S HOSPITAL (2019 – 2021)**Nguyen Thi Ngoc Tu, Truong Thi Mai Hong, Le Ngoc Duy,
Hoang Thi Bich Ngoc, Le Thi Ha.***¹National Children's Hospital***Abstract**

Sepsis is a life-threatening condition responding to an infectious agent causes damage to tissues and organs. Sepsis causes serious consequences in neonates due to high rates of mortality and sequelae and disability. Currently, the treatment of neonatal sepsis is still facing many difficulties due to late diagnosis, inappropriate antibiotic selection for the pathogen model. The mortality rate of the disease is still high. Determining the pathogens of neonatal sepsis at the National Children's Hospital (2019 – 2021). A descriptive study was conducted on 85 positive blood culture samples of full-term infants admitted to the Neonatal Center of Vietnam National Children's Hospital in the period from 12/2019 to 4/2021.

Gram-negative bacteria accounted for the highest percentage 51%, Gram-positive bacteria accounted for 38.8%, Candida accounted for 9.4%. S. aureus is the common cause of disease (28.2%), E. coli and K. pneumonia account for a high proportion (16.5%). Antibiotics with high sensitivity are vancomycin, aztreonam, moxifloxacin, ertapenem, levofloxacin, meronem.

Keywords: *neonatal sepsis, blood culture, antibiotic sensitivity*

Reviewer

Assoc. Prof. Cao Ba Loi PhD

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10 No. 6(126)/2021 THE JOURNAL OF MALARIA AND PARASITIC DISEASE CONTROL
**SPECIFIC IDENTIFICATION OF INFLUENZA VIRUS (A/H5N1) STRAIN
IN INFLUENZA A/H5N1 VACCINE BY RT-PCR METHOD**

Pham Van Hung

National Institute for Control of Vaccine and Biological (NICVB)

Abstract

RT-PCR (Reverse transcription - Polymerase Chain Reaction) is applied to determine the presence of influenza virus A/ H5N1 in influenza A/H5N1 vaccine, and to develop an identity process for specific virus strain A/H5N1 in influenza vaccine A/H5N1. Selected samples included: Ivacflu-A/H5N1 vaccine (Institute of Vaccines and Biologicals), Vaxigrip vaccine (Sanofi Pasteur), Influenza virus strain A/Vietnam/1194/2004(A/H5N1) (NIBSC) was used as positive control; vaccine Varivax (MSD) and DNA/RNA free water was used as negative controls. The results of study showed that virus strain A/H5N1 was identified as production of RT-PCR that were positive with amplified primer pairs of 2 specific gene sequences of HA whose length 428 and 249 bp.

Key word: Influenza virus A/H5N1 strain, Influenza vaccine, RT-PCR.

Reviewer

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I. GENERAL REQUIREMENTS

- The article must be typed in Unicode font, Times New Roman, 12 pt font size, except for the title, of which the font size is 14 pt and keywords, of which the font size is 11 pt.

- Each article must not exceed 4,000 words (about 7-8 pages of A4 size) including tables, illustrations and references.

- The article should be on A4 paper with margins of 2.5 cm (top and bottom), 2.2 cm (left), and 1.8 cm (right); first line indent of 1 cm; single line spacing; paragraph spacing of 3 pt (above and below).

- The manuscript must be paginated in the middle at the bottom of the page.

- Names of drugs and chemicals should be kept unchanged in Latin (except for the names of antimalarials which have already been localized in the book "Guidelines for Malaria Diagnosis and Treatment" by Ministry of Health).

- Latin names of insects, parasites, animals, plants, microorganisms ... should be written as prescribed by the International Nomenclature.

- Terms should be consistent with the Vietnamese encyclopedia. Vietnamese nouns if translated from a foreign language must be accompanied by the original writing. Abbreviations must have captions.

- Tables, charts, graphs (format: .jpeg, .pdf, ...) should be positioned properly in the manuscript; and the original files should also be sent separately to

the editorial board. A descriptive title should be placed above each table, and the caption is placed directly below each image, picture, and graph.

- The title should be followed by no punctuation.

II. ORDER AND PRESENTATION OF CONTENT ITEMS IN THE ARTICLE

The article is presented in 18 major items, of which only 5 items are numbered. The order of items in the article is as follows:

TITLE (14pt font size, uppercase, bold, except for species names which are not capitalized; central alignment).

Author et al. (Authors' names are listed in order according to their contribution to the work, bold text, left alignment).

Address, email (work address, italic text, left alignment).

Abstract (250 words or less, presenting all the basic results and conclusions of the study, italic, justified).

Key words:(including 3-6 words or phrases, expressing the main problem of the study, 11 pt font size, italic, justified)

1. INTRODUCTION (This is an introduction to research objectives in relation to other studies of the same field that have been done before, no more than 01 A4 page).

2. MATERIALS AND METHODS (This is a brief and informative description about the study subject and method. The new first-implemented procedures should be described in details with specific citations and approval from the Institutional Review Board (IRB). The paper can be divided into the following sections:

2.1. Study site and timeframe (compulsory)

2.2. Subjects (compulsory)

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.....

3. STUDY RESULTS

(Figures and Tables are included. They should be numbered, clearly and concisely presented with full captions. The results which cannot be shown in the table can be expressed by text. Each article contains no more than 8 Tables and Figures. Brief and concise *comments* should go after each Table and Figure).

4. DISCUSSIONS

(The discussion should not exceed 2 pages, discussing and explaining issues related to the obtained results and comparing them with some similar results from other studies).

5. CONCLUSIONS

(Each conclusion should be numbered in sequence in relation to the study results. It should be kept neat and highlight specific data of the research results).

RECOMMENDATIONS (if any)

Acknowledgement: (if any)

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- *Arrangement*: References are classified separately according to language (Vietnamese, English, French, German, Russian ...). Foreign language materials must be kept unchanged without transliteration and translation.

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1. Bộ Y tế (2007), *Xác định cỡ mẫu trong các nghiên cứu y tế*, Nhà xuất bản Y học Hà Nội, tr. 23- 26.

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* *English*:

1. Borkakati R.R., Vinmanni S. S. (1997), “Genetics of thermosensitive genic male sterility in Rice”, *Euphytica*, 88(1), pp.1-7.

2. Cabada M.M, White A.C. (2012), “New development in epidemiology, diagnosis, and treatment of fascioliasis”, *Current Opinion in Infectious Diseases*, 25(5), pp. 518-522.

3. FAO (1971), *Agricultural Commodity Projection (1970–1980)*, Vol. II. Rome.

4. Institute of Economic (1988), *Analysis of Expenditure Pattern of Urban Households in Vietnam*, Department of Economics, Economics Research Report, Hanoi.

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