Possibilities of using endogenous bioresonance therapy in the treatment of severe (cerebral) malaria

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The work was carried out in a 20-bed municipal hospital in Shipinda, Republic of Angola, Huila province. There are no doctors on the hospital staff, diagnostic options are limited (blood test for malaria, syphilis, Vidal's reaction, leukocyte count, blood group and Rh factor tests, urine and feces tests). Blood for malaria was tested only in 1.8% of cases, in 78% this analysis was positive.

According to reports from the Shipinda Hospital, the average number of malaria cases in 2004-2007 was 38.6% of all clinical diagnoses, and for the province of Huila as a whole in 2007 - 28% (Table 1).

Table 1

Malaria data from Shipinda Hospital and Huila Province

Indicators	2004	2005	2006	2007	Huila, 2007
Consulting	53203	56778	35070	63093	308105
Malaria cases	18969	21286	14980	23846	85301
Malaria cases,% Severe malaria cases	35.6	37.4	42,7	37.8	27.7
Severe malaria cases,% Malaria deaths	155	190	230	144	2122
	0.82	0.88	1.54	0.61	2.49
	29	21	fifteen	fifteen	234
Mortality from severe malaria,%	18.71	11.05	6.52	10.42	11.03

Mortality from malaria in the Republic of Angola as a whole in 2004 was 5.4 per 1000 malaria patients, and in the group of children under 5 years old - 7.6. From a severe form of malaria, on average, every 10th patient died.

When assessing morbidity by age group, 38–43% falls on patients over 14 years old, 30–40%

- for patients from 5 to 14 years old, 25-30% - for children under 5 years old.

The main clinical symptoms of severe (cerebral) malaria have now changed and do not correspond to the classical picture - chills, fever, sweating, 3-, 4-day cyclicity of fever, etc. According to the healthcare data of the Republic of Angola, this is a deep coma, convulsions, areflexia, psychomotor agitation, fever of more than 38.5oC, leukocytosis more than 12000 in 1 mm3, anemia, hemoglobin less than 5 g / dl, hypoglycemia 40 mg / dl, parasitemia 100,000-250,000 per mm3, creatinine more than 3 mg / dl, increased aminotransferase levels, decreased antithrombin III levels, hypotension, metabolic acidosis, septic shock, pulmonary edema and pneumonia (respiratory syndrome), gastrointestinal syndrome, hemorrhage,
yellowness of the skin and mucous membranes, hepatosplenomegaly, activation of concomitant infections.

Upon regaining consciousness, patients complain of headaches, chest pains, cough, abdominal pain, nausea and vomiting, diarrhea, joint pain, and general weakness.

Severe (cerebral) form of malaria most often develops in malaria falciparum, which occurs in the Republic of Angola in 90% of all types of malaria. For diagnosis, the presence of fever, parasitemia, seizures, coma is sufficient. Severe cases of malaria develop more often with repeated illnesses and when infected with several types of parasites at the same time.

This study estimated 29 cases of severe (cerebral) malaria. The diagnosis was based on clinical and in 76% of cases on laboratory data, in 100% of cases the analysis for malaria was positive. A history of malaria was noted in 1/3 of cases, body temperature was more than 38.5oC in 76%, clinical symptoms of coma in 93%, areflexia in 62%, seizures in 38%, psychomotor agitation in 49%, respiratory syndrome in 83% (mainly in children), hepatosplenomegaly in 1/3 of patients, anemia in 41 % of cases (determined by the pallor of the mucous membranes and skin of the palms and feet). After stopping the coma, the patients presented complaints, reflected in the table. 2. The clinical symptoms were more pronounced in children under 5 years of age.

According to the methodological recommendations of the health care of the Republic of Angola, treatment of severe (cerebral) malaria begins with intravenous administration of a shock initial dose of quinine per 500 ml of 5% glucose solution - 20 mg / kg of body weight (subsequent administration of 10 mg / kg) with the addition of a complex of vitamins of group B ”, 42 drops per minute every 8 hours for 3 days. Subsequently, quinine is taken orally at 10 mg / kg, three times a day for 7 days.

An alternative to intravenous administration of quinine is intramuscular injections of artemether: on day 1 - 3.2 mg / kg, on days 2–5 - 1.6 mg / kg once a day. Artemether is less effective, and other antimalarial drugs are not significantly effective.

Complex therapy also includes the use of symptomatic drugs, anticonvulsant and antipyretic drugs, antibiotics, blood transfusion and treatment of leading clinical syndromes.

In the Municipal Hospital in Shipinda, such a comprehensive treatment was very difficult. Quinine and artememeter were periodically absent, and the relatives did not have the means to purchase them. These difficulties in 62% of cases allowed for treatment with endogenous bioresonance therapy (BRT) with the introduction of information copies of quinine and artemether. Quinine and artemetra were used parenterally only in 38% of cases (Table 3). Quinine was administered intravenously in 17%, and in children under 5 years of age in 10%; children under 5 years old accounted for 63% of all patients.

table 2

Clinical symptoms of severe (cerebral) malaria

Symptoms	Under 5 years old	5-14 years old	Older than 14 years old	Total	Share,%
Number of cases	nineteen	3	7	29	100
History of malaria	4	one	five	10	34
Positive analysis for malaria	fourteen	2	6	22	76
Temperature over 38.5 oWITH	fifteen	3	4	22	76
Coma	nineteen	2	3	24	83
Convulsions	10		one	eleven	38
Areflexia	fourteen	3	one	18	62
Psychomotor excitation	nine	3	2	fourteen	49
Vomit	6	2	4	12	41
Diarrhea	7	2	five	fourteen	49
Jaundice	2		2	4	fourteen
Hepatomegaly	eight	one	2	eleven	38
Splenomegaly	6	one	2	nine	31
Anemia	7	2	3	12	41
Edema	3	one	2	6	21
Nausea	4	3	five	12	41
Weakness	10	3	6	nineteen	66
Dizziness	2	2	five	nine	31
Headaches	nine	2	7	18	62
Chest pain and cough	18	3	3	24	83
Stomach ache	five	3	6	fourteen	49
Myoarthralgia	3	one	five	nine	31

Table 3

Malaria treatment

Medication	Under 5 years old	5-14 years old	Over 14 years old	Total	Share,%
Quinine, i / v	2	2	one	five	17
Quinine, tab.	10	2	one	13	45
Artemeter, amp.	4	one	one	6	21
Coarten	3	one	five	nine	31
Amodiakin	3	one	one	five	17
Artesunate	2			2	7
Fanzidar	fifteen	2	7	24	80
Chloroquine	one			one	3.4
Blood transfusion			one	one	3.4

We have not met the experience of using BRT in malaria in the available literature. The work was carried out without preliminary electropunctural diagnostics due to the lack of appropriate equipment.

Endogenous BRT was performed using the device for adaptive BRT "IMEDIS-BRT-A". The patient received standard electrodes on the arms, legs, forehead and additional electrodes in the projection of the liver and spleen. During the first 10–15 s, disharmonic oscillations were recorded on the carrier in the 1st container (horizontal mode, "golden section"), then the disharmonic oscillations and a drop of blood of this patient were placed in inversion (3rd container). At the same time, quinine and artememeter were placed in the load (2nd container). The therapy time is 1–2 hours, sometimes up to 3–4 hours (until the patient comes out of the coma). During the last 5 minutes, the BR-preparation was recorded in 1 container on rice or sugar for small children (there was no homeopathic grits). BR-drug was taken at a dose of 3 grains of rice or sugar on the tip of a teaspoon 3 times a day during the entire period of hospital treatment. Subsequently within 1 month

- 1 time per day at a dose of 3 grains of rice or sugar on the tip of a teaspoon to prevent recurrence of the disease. For 3 months of follow-up, no relapses were noted.

Complex treatment of severe (cerebral) malaria has had positive results. Deaths were only in 2 children under the age of 3 months, admitted to the hospital in a terminal state, who died within 1–2 hours after hospitalization.

The results of treatment and the dynamics of clinical symptoms during therapy are presented in table. 4.

Table 4

Dynamics of disease symptoms

Indicators	Relief of symptoms of the disease,%						
	1st day	2nd day	3rd day	4th to 5th day	6-7th day	8-10th day	More than 11 days
Temperature	sixteen	62	74	86	90	100	
Coma	100						
Psychomotor agitation	100						
Convulsions	100						
Gastrointestinal							
symptoms			28	86	100		
Respiratory symptoms			eight	44	80	96	100
Edema			17	84	100		
Jaundice					75	100	
No complaints			26	74	92	100	
Checkout					37	89	100

Coma, psychomotor agitation, convulsions were relieved within the first day, as a rule, in the course of BRT; respiratory syndrome persisted for the longest time in children under 5 years of age. Hepatosplenomegaly did not go away during hospital treatment. Most of the patients were discharged on day 8-10.

Thus, the experience of using BRT in severe (cerebral) malaria, including in young children, allows us to draw the following conclusions:

1. The use of BRT in severe (cerebral) malaria has a good clinical effect, even without parenteral quinine or artemether. The mortality rate with the use of BRT in the group of children under 5 years old was 1.6 times less than the average for 2007 in Shipinda, and there were no lethal outcomes in patients over 5 years old.

2. The use of information copies of quinine and artemether is comparable in effect to their parenteral introduction.

3. Clinical symptoms of coma and other severe manifestations of the disease are stopped during the session BRT on the first day. The disease is less severe and there are no complications.

4. The use of information copies of quinine and artemether is effective for the prevention of relapses. disease, and re-invasion of plasmodia, or at least reduce the severe course of the disease. To do this, it is possible to record information copies of quinine and artemether for salt, sugar, corn flour (these products are consumed by the local population every day) and other information carriers. However, further study of this issue is required.

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