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Evaluation of the Clinical Efficiency of an Antisickling Polyherbal Formula Drepanoalpha in a Sickle cell disease Patient in Gbado-Lite City (Democratic Republic of the Congo) by Quantum Magnetic Resonance Analyzer

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Abstract: *Sickle cell disease is a genetic disease linked to the presence of hemoglobin S in the blood and is a major public health problem in Africa. The drugs available are expensive in view of the purchasing power of the majority of the population. The aim of this study was to assess the clinical efficacy of an improved traditional medicine called Drepanoalpha (an anti-sickle cell polyherbal formula) in a homozygous sickle patient using the quantum magnetic resonance analyzer. The results show the relevance of the use of this unconventional technical approach in the sickle cell disease patient treatment evaluation. Indeed, this study showed that Drepanoalpha is effective in vivo and restored homeostatic balance by optimizing some vital functions in the treated patient. The quantum magnetic resonance analyzer is therefore an important away which allows understanding the disorders of the body due to sickle cell disease and their correction post-treatment. It is desirable that the use of this device be validated in the evaluation of the effectiveness of anti-sickling drugs in large-scale clinical trials in rural areas like Nord-Ubangi province. Indeed, this instrument is not only fast, practical, economical, accessible, non-invasive but also easy to use and suitable for this category of research in underprivileged areas. The results obtained are in perfect agreement with the facts observed (recovery of some vital parameters and disappearance of seizures in the patient).*
Keywords: *Unconventional medicine; quantum magnetic resonance analyzer; sickle cell disease; nutraceuticals; therapeutic efficacy*

I. Introduction

Sickle cell disease or SS anemia is a hereditary hemoglobinopathy linked to the presence of hemoglobin S in the blood and is a major public health problem in endemic areas. The available medicines are imported, making them expensive in view of the purchasing power of the majority of the population. For more than a decade, our team has been conducting rigorous scientific research on plants used in Traditional Medicine to treat this pathology. These studies led to the formulation of a polyherbal based medicinal plants food in the Democratic Republic of the Congo (DRC) called Drepanoalpha [1-4]. It is a drug whose efficacy has already been scientifically validated *in vitro* and *in vivo* and its toxicity limits are well known. Recent reports of total disappearance of seizures among homozygous sickle cell patients who have been treated with Drepanoalpha have been reported by patients or their families across the DRC (Abumombazi, Bukavu, Gbado-Lite, Gemena, Goma, Kinshasa, Lubumbashi, etc.). It has been observed that in more than 100 treated patients, the phenotypic profile is the same as that of normal individuals,

suggesting that this would be an epigenetic modulation of the gene. This medication is given after prior infusion of one to two teaspoons of the powder in boiling water and should be administered within hours of its preparation. The volume of administration is 20 mL with remarkable pharmacological effects in sickle cell patients [5-11]. However, conventional methods of assessing the therapeutic efficacy and safety of improved traditional drugs are expensive because of laboratory consumables (chemical reagents) and equipment, and which, in besides, do not exist in the universities of the hinterland; however, they must train community managers and conduct high-level scientific research in the absence of state and laboratory grants. For this purpose, quantum magnetic resonance (RMQ) is a technique of choice for monitoring treatment in order to disprove or confirm the therapeutic efficacy and safety of a phytodrug in patients. It is a fast, non-invasive and painless technique that does not use chemical reagents but simply exploits the body's electromagnetic properties using an electronic sensor coupled with the RMQ analyzer and a computer [12-14]. This study was initiated with the aim of validating and promoting the use of RMQ in the monitoring of phytotherapeutic management of sickle cell disease in African rural zones and also as a simple, robust, alternative and/or follow-up of clinical trials in sickle cell patients. Given the limitations of the use of conventional methods in assessing the clinical effectiveness of plant derived medicines in rural areas, RMQ can provide a unique opportunity. This study is a major contribution to clinical trials using an unconventional method. To the best of our knowledge, the evaluation of the therapeutic efficacy of Drepanoalpha by this unconventional methodological approach in a homozygous sickle cell disease (SCD) patient is an original strategy of clinical studies never carried for such screening in the DRC.

II. Material and Methods

2.1 Place of study

This study was conducted in Gbado-Lite city in the Nord-Ubangi province (Figure 1) in the Democratic Republic of the Congo.

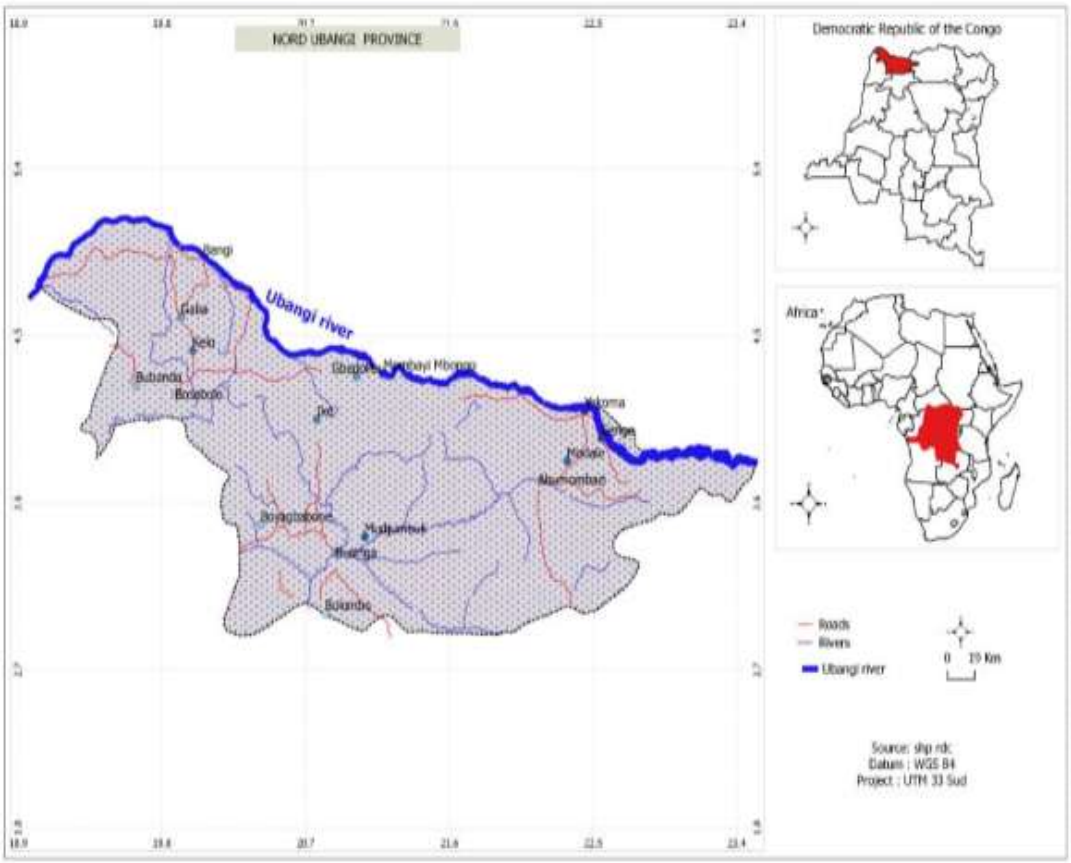

Figure 1. *North Ubangi Province*

a. Sickle Cell Anemia Patient

The 13-year-old female patient (size: 110 cm; weight: 30 kg) was received in our research unit "Ethnopharmacology and unconventional Medicine" attached to the University Medical Center of University of Gbado-Lite, DRC in May 06, 2019 for painful seizures (vaso-occlusion) and hemolytic anemia. Result of Emmel test revealed SCD status. The SCD patient had received first aid at the Gbado-Lite General Reference Hospital (HGR) where he received symptomatic treatment. When he arrived at the University medical center, accompanied by his father, the hemoglobin level was 6% and the patient had splenomegaly and jaundice and has never been transfused since birth. His father admits to having previously submitted successfully her child to Drepanoalpha treatment in 2016 and that the child had no pain crisis longer known until he was admitted to HGR.

b. Drepanoalpha (An innovative antisickling polyherbal formula)

Drepanoalpha is an anti-sickle cell dietary supplement that supplements SCD patient nutrition with essential proteins and trace elements. His powder contains 17% proteins, 5.70% fat, 6% raw fibre and 55.33% carbon hydrates and presents an energy value of 1482.07 kJ.

In addition, this nutraceutical contains in its composition the iron (9.0 mg/100 g), magnesium (1.4 mg/100 g), calcium (4.8 mg/100 g), zinc, manganese, potassium, phosphorus and vitamin C. phytochemical Studies showed that anthocyanins and organic acids are the main active principles of Drepanoalpha. In addition, flavonoids are plentiful in Drepanoalpha and can be proposed as phytomarkers for quality control and the standardization of this dietary supplement. In addition to its nutritional properties, Drepanoalpha showed an ability to increase the hemoglobin level *in vivo* and antisickling activity (normalization rate: 80%), anti-hemolytic and antioxidant properties (DE_{50}: 0.604 ± 0.028 µg/mL). Drepanoalpha reduces the frequency of sickle cell attacks and improves the general state of treated patients. With a lethal dose (DL_{50}) greater than 4,000 mg/kg in the Wistar rat and 16,000 mg/kg in the guinea pigs, the product may be considered non-toxic under the normal conditions of its use. In addition, the product did not show any toxicity on immune cells and blood coagulation factors. Forits use, it is necessary to place in a cup about 80 mL boiling water and add the amount of the powder of Drepanoalpha corresponding to the patient's age, i.e. 1 to 2 teaspoons. After infusion for 30 minutes, the surnageant is collected after filtration using a tea sieve or a very clean cloth. The resulting infuse will be administered three times a day at a rate of 20 mL per intake. This infuse cannot be used beyond 24 hours after its preparation. To be effective, Drepanoalpha should be consumed continuously for at least 6 months; it was only after that will give the maintaining doses [5-11].

***Figure 2.** 1Drepanoalpha Powder*

III. Methodology

The mini-quantum analyzer performs a systematic scan of the human body. Electromagnetic signals emitted by the human body (a reflection of its normal or pathological state) are collected by an electronic sensor, amplified and processed by a microprocessor. The data collected is then compared by the software with the RMQ spectrum based on the principles of Fourier serial decomposition.

The main elements of analysis relate to about 40 parameters, of which cardiovascular systems and cerebro-vascular, bone mineral density, trace elements, nerves cranial, the gastrointestinal function, function of the large intestine, liver function, gallbladder function, pancreatic function, kidney function, the pulmonary function, brain, bone growth index, the endocrine system, the immune system, etc. The test is done before the meal or an hour later in an elongated position as showed in figure 3 and by ridding the patient of any metal objects and other electronic devices. The patient takes in his left or right hand the electronic sensor coupled with the RMQ and a personal computer as described by the manufacturer of the RMQ device [12-14].The data was taken on D-day$_0$ Base line and J_{21} post treatment. The duration of treatment was seven days (J_1-$J_{7)}$.

After scanning the human body, the results are automatically displayed on the computer screen and can be recorded or printed.

Figure 2.*RMQ Analyzer*

IV. Discussion

The results of the RMQ analyses indicate that for some parameters, the values were not influenced by the taking of Drepanoalpha. While for others, the parameter values have been corrected from abnormally low or high values to normal benchmarks. These observations confirm the safety and therapeutic efficacy of Drepanoalpha in homozygous SCD patient as previously validated by conventional techniques in SS erythrocytes, rats; guinea pigs and homozygous SCD patients' model systems [6, 8, 10, 11].

The ***safety*** results in the absence of alteration of the values of vital organs (unchanged values) indicating that Drepanoalpha does not interfere with the functions of vital organs (kidneys, liver, brain, etc.): Cardiovascular and cerebrovascular systems, gastrointestinal function, liver

function, gallbladder function, pancreatic function, kidney anointing, lung function, bone mineral density, brain, rheumatism, blood sugar, amino acid, skin, eyes, thyroid, etc. While, ***efficiency*** therapeutic results in the normalization of the values of parameters assessed from the body or organs emitting electromagnetic waves obtained by an electronic sensor coupled with the RMQ.

These values provide information on the state of the body or organ: healthy (normal value) or pathological condition (anomaly: abnormally low or high relative to normal/reference). This study revealed that Drepanoalpha is effective *in vivo* and has restored homeostatic balance by optimizing certain vital functions in the treated SCD patient. Indeed, Drepanoalpha has improved the function of the large intestine by normalizing the coefficient function of peristalsis function of the large intestine, the rate of absorption of the colon and the coefficient of bacteria. For the latter parameter the decrease in its value from 13,797 to 2,611 means that treatment with Drepanoalpha reduces the incidence of bacterial infections in the SCD patient. Taking the infused based nutraceutical improved the functioning of the cranial nerves and the memory index at the level of the patient's brain, bone mineral density. The polyherbal formula also helps to prevent rheumatism by improving the coefficient of hyperostosis and the coefficient of osteoporosis. Bone growth index values include bone alkaline phosphatase, osteocalcin, long bone healing status and epiphysic line; 17 mineral elements (Fe, Zn, Se, Cu, Co, Mn, I_2, Ni, Fluore, P, K, Mg, Vanadium, Sn, Si, Sr and Bore); 8 vitamins (A, D_3,E, K, B_1,B_3,B_{12},C); 5 coenzymes (biotin, pantothenic acid, folic acid, nicotinamide) and glutathione were standardized/normalized. It should also be noted that the consumption of Drepanoalpha also improved the endocrine system (thyroid index, adrenal gland index, pituitary secretion index, pineal secretion index, glandular secretion index, thymus) and the immune system (amygdala immune index, bone marrow index, spleen index: from 253,757 to 35,637, index of immune system, index of immune gastrointestinal tract) of the SCD patient.

The reduction in the index value of the spleen is evidence that Drepanoalpha reduced the rate of sickle cell disease in *vivo* and would therefore prevent splenic sequestration of sickle cell cars reported in the literature as a factor responsible for splenomegaly in SCD patients [15]. The results of this study also show that Drepanoalpha improves the physical quality base of sickle cell disease. Indeed, this phytodrug reduced the response capacity index (from 288,094 to 65,419) respectively, the lack of water (from 323,023 to 37,637) and Index of hypoxia (from1208, 137 to 141,467). This shows that Drepanoalpha improves the state of hydration and oxygenation ofsickle celletirocytics and confirms that the bioactive molecules contained in Drepanoalpha would inhibit on the one hand, falciformation by interfering with the polymerization of deoxyhemoglobin S and the Gardos canal reported in the literature as a factor implicated in erythrocytic dehydration [16] on the other hand.

The results of the RMQ analysis also indicate that Drepanoalpha prevents obesity in patients by reducing the lipid metabolism coefficient (from 3,954 to 3,708) and fat tissue colour coefficient (from 11,555 to 4,197).

Based on the results of this study, Drepanoalpha reduces proportion of collagen (at the level of certain systems and devices in the body) as well as the body's main and collateral channels; decreases systolic volume (from 195,026 to 67,882), low-density lipoprotein (C-LDL: from 7,301 to 1,578); estrogen (from 11,084 to 8,828), gonadotropin (from 20,534 to 8.93), prolactin (from 8,101 to 7,846), progesterone (from 64,712 to 16,724) and neurotransmitters (from 3,168 to 0.973).The standardization of C-LDL and neurotransmitters by Drepanoalpha allows trait prevent respectively atherosclerosis and inflammation in sickle cell disease. To this end, it should be noted that various inflammatory agents are often increased in SCD patients and are likely to cause a kidney dysfunction [17].

V. Conclusion

The aim of the present study was to evaluate the clinical efficacy of Drepanoalpha, an anti-sickle cell nutraceutical, in a homozygous SCD patient using the RMQ analyzer. The results show the relevance of the use of this unconventional analysis in the SCD patient under treatment. The RMQ analyzer being a reliable way to understand the body's disorders in a holistic way (deficiency, balance or excess), it can be validated as an appropriate and robust means for monitoring and evaluating the effectiveness of anti-sickle cell drugs in large-scale clinical studies (nutritherapy program) in rural areas. This device is not only fast, practical, economical, accessible, non-invasive but also easy to use and adapted for this category of research in underprivileged areas.

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Appendix: Test results

Evaluated parameter	value		
	normal	J_0	J_{21}
Systems cardiovascular and cerebrovascular			
Blood viscosity	48,264 - 65,371	64,599	64,601
Cholesterol crystals	56,749 - 67,522	72,58	72,602
Blood lipids	0,481 - 1,043	0,607	0,623
Vascular resistance	0,327 - 0,937	1,417	1,423
Blood vessel elasticity	1,672 - 1,978	1,694	1,704
Myocardide blood demand	0,192 - 0,412	0,492	0,511
Blood infusion volume of the myocardia	4,832 - 5,147	5,095	5,111
Oxygen consumption of the myocardia	3,321 - 4,244	3,845	3,849
Heart rate	1,338 - 1,672	1,152	1,149
Ejection impedance of the left ventricle	0,669 - 1,544	1,229	1,237
Actual propulsion power of the left ventricular	1,554 - 1,988	1,09	1,094
Coronary artery elasticity	1,553 - 2,187	1,57	1,593
Coronary infusion tension	11,719 - 18,418	17,221	17,221
Elasticity of brain blood vessels	0,708 - 1,942	1,078	1,088
Brain blood supply situation	6,138 - 21,396	13,703	13,735
Gastrointestinal function			
Pepsin secretion coefficient	59,847 - 65,234	59,827	59,837
Gastric motility factor	58,425 - 61,213	60,141	60,159
Gastric absorption coefficient	34,367 - 35,642	33,916	33,904
Digestive motor coefficient of the small intestine	133,437 - 140,476	136,858	136,879
Small intestine absorption coefficient	3,572 - 6,483	2,924	2,94
Function of the large intestine			
Coefficient of peristalsis function of the large intestine	4,572 - 6,483	21,55	6,444
Colon absorption rate	2,946 - 3,815	10,273	3,781

Bacteria coefficient	1,734 - 2,621	13,797	2,611
Intraluminal pressure coefficient	1,173 - 2,297	26,291	26,287
Liver function			
Protein metabolism	116,34 - 220,621	147,868	147,887
Energy production function	0,713 - 0,992	0,803	0,816
Detoxification function	0,202 - 0,991	0,221	0,224
Bile secretion function	0,432 - 0,826	0,436	0,444
Liver fat content	0,097 - 0,419	0,593	0,609
Gallbladder function			
Serum-globulin (A/G)	126 - 159	142,833	142,835
Bilirubin Total (TBIL)	0,232 - 0,686	0,463	0,457
Alkaline Phosphatase (ALP)	0,082 - 0,342	0,289	0,305
Total bile acid serum (TBA)	0,317 - 0,695	0,483	0,489
Bilirubin (DBIL)	0,218 - 0,549	0,269	0,279
Pancreatic function			
insulin	2,845 - 4,017	3,59	3,593
Pancreatic Polypeptide (PP)	3,210 - 6,854	4,28	4,296
Glucagon	2,412 - 2,974	2,762	2,778
Kidney function			
Urobilinogen index	2,762 - 5,424	5,678	5,676
Uric acid index	1,435 - 1,987	1,845	1,829
Blood urea index (BUN)	4,725 - 8,631	9,514	9,524
Proteinuria index	1,571 - 4,079	2,572	2,6
Lung function			
Vital capacity	3348 - 3529	5387,049	5387
Total lung capacity	4301 - 4782	4219,895	4220
Airway resistance	1,374 - 1,709	6,396	6,4
Arterial oxygen content	17,903 - 21,012	79,864	79,866
Cerveau			
Blood irrigation of the brain	143,37 - 210,81	137,927	137,931
Cerebral arteriosclerosis	0,103 - 0,642	1,109	1,116
State of cranial nerves	0,253 - 0,659	1,252	0,641
Emotional index	0,109 - 0,351	3,477	3,496
Memory Index (ZS)	0,442 - 0,817	3,349	0,807
Bone mineral density			
Osteoclast coefficient	86,73 - 180,97	838,012	838,013
Calciumrate	0,209 - 0,751	7,125	7,121
Degree of bone hyperplasia	0,046 - 0,167	0,227	0,243
Degree of osteoporosis	0,124 - 0,453	4,313	4,323
Bone mineral density	0,433-0,796	1,217	0,786
rheumatism			

Degree of cervical calcification	421 - 490	2678,672	2678,682
Degree of lumbar calcification	4,326 - 7,531	74,906	74,903
Hyperostosis coefficient	2,954 - 5,543	0,155	2,976
Osteoporosis coefficient	2,019 - 4,721	0,885	2,032
Rheumatism coefficient	4,023 - 11,627	55,29	55,315
Bone growth index			
Bone alkaline phosphatase	0,433 - 0,796	6,327	0,778
Ostéocalcine	0,525 - 0,817	5,752	0,812
Long Bone Healing Status	0,713 - 0,992	1,541	0,982
Health of short bone cartilage	0,202 - 0,991	0,237	0,25
Epiphysary line	0,432 - 0,826	6,043	0,816
Sugar in the blood			
Insulin secretion coefficient	2,967 - 3,528	12,421	12,412
Blood glucose coefficient	2,163 - 7,321	1,286	1,297
Sugar coefficient in urine	2,204 - 2,819	6,8	6,815
Mineral elements and Oligo-elements			
Calcium	1,219 - 3,021	0,058	0,062
Do	1,151 - 1,847	2,634	1,829
Zinc	1,143 - 1,989	4,007	1,984
Selenium	0,847 - 2,045	2,238	2,04
phosphorus	1,195 - 2,134	10,936	2,129
Potassium	0,689 - 0,987	5,411	0,982
magnesium	0,568 - 0,992	1,777	0,973
Copper	0,474 - 0,749	4,084	0,739
Cobalt	2,326 - 5,531	18,245	5,518
Manganese	0,497 - 0,879	1,831	0,874
Iodine	1,421 - 5,490	39,665	5,488
Nickel	2,462 - 5,753	19,551	5,736
Fluor	1,954 - 4,543	17,917	4,529
Molybdenum	0,938 - 1,712	1,481	1,491
Vanadium	1,019 - 3,721	30,35	3,706
Tin	1,023 - 7,627	47,264	7,617
Silicon	1,425 - 5,872	11,586	5,862
Strontium	1,142 - 5,862	11,568	5,857
Bore	1,124 - 3,453	17,806	3,443
Vitamin			
Vitamin A	0,346 - 0,401	0,576	0,396
Vitamin B_1	2,124 - 4,192	3,402	3,411
Vitamin B_2	1,549 - 2,213	4,973	2,208
Vitamin B3	14,477 - 21,348	84,544	21,348
Vitamin B_6	0,824 - 1,942	0,307	0,307
Vitamin B_{12}	6,428 - 21,396	123,552	21,391

Vitamin C	4,543 - 5,023	26,169	5,013
Vitamin D_3	5,327 - 7,109	13,574	7,093
Vitamins E	4,826 - 6,013	13,151	6,008
Vitamin K	0,717 - 1,486	6,795	1,472
Amino acid			
Lysine	0,253 - 0,659	2,932	2,965
Tryptophan	2,374 - 3,709	4,183	4,175
Phenylalanine	0,731 - 1,307	1,122	1,124
Methionine	0,432 - 0,826	0,617	0,614
Threonine	0,422 - 0,817	1,47	1,481
Isoleucine	1,831 - 3,248	17,471	17,481
Leucine	2,073 - 4,579	31,952	31,951
Valine	2,012 - 4,892	11,052	11,059
Histidine	2,903 - 4,012	10,927	10,923
Arginine	0,710 - 1,209	13,471	13,496
Coenzymes et oligopeptide			
Nicotinamide	2,074 - 3,309	18,299	3,302
Biotin	1,833 - 2,979	9,114	2,974
Pantothenic acid	1,116 - 2,101	5,947	2,096
Folic acid	1,449 - 2,246	7,032	2,239
Coenzyme Q10	0,831 - 1,588	0,844	0,878
Glutathione	0,726 - 1,281	2,677	1,271
Endocrine system			
Thyroid secretion index	2,954 - 5,543	9,418	5,538
Parathyroid secretion index	2,845 - 4,017	2,498	2,524
Index ofadrenal heaths	2,412 - 2,974	10,815	2,959
Hypophysis secretion index	2,163 - 7,34	2,132	2,164
Pineal secretion index	3,210 - 6,854	37,457	6,844
Thymus secretion index	2,967 - 3,528	20,559	3,523
Glandular secretion index	2,204 - 2,819	12,235	2,8
Immune system			
Lymph node index	133,437 - 140,47	787,062	787,073
Immune Index hasmygdal	0,124 - 0,453	1,288	0,448
Bone marrow index	0,146 - 3,218	16,591	3,208
Rate index	34,367 - 35,642	253,757	35,637
Index Thymus	58,425 - 61,213	3,773	3,784
Index immunoglobulin	3,712 - 6,981	1,489	1,503
Respiratory Immune Index	3,241 - 9,814	83,932	9,809
Gastrointestinal immune index	0,638 - 1,712	7,653	1,702
Mucous membrane immune index	4,111 - 18,741	12,858	12,866
Thyroid			
Thyroxine libre (FT4)	0,103 - 0,316	0,841	0,849
Thyroglobulin	0,114 - 0,202	1,83	1,843
Anticorps anti-thyroglobuline	0,421 - 0,734	3,185	0,729
Triiodothyronine (T3)	0,161 - 0,308	1,583	1,593
Qualité physique Base			
Response capacity	59,786 - 65,424	288,094	65,419
Mental capacity	58,715 - 63,213	21,1	21,11

Lack ofe	33,967 - 37,642	323,023	37,637
Hypoxia	133,642 - 141,476	1208,137	141,467
pH	3,156 - 3,694	6,094	6,111
Obesity			
Lipid metabolism coefficient	1,992 - 3,713	3,954	3,708
Fat tissue colour coefficient (from Brown)	2,791 - 4,202	11,555	4,197
Insulin increase coefficient (hyper insulin)	0,097 - 0,215	1,227	1,237
Hypothalamus core coefficient	0,332 - 0,626	5,547	5,549
Triglyceride content coefficient	1,341 - 1,991	1,216	1,356
Skin			
Free radical skin indexes	0,124 - 3,453	0,618	0,608
Index of collagen in the skin	4,471 - 6,079	8,456	6,069
Fat index in the skin	14,477 - 21,348	136,897	136,913
Skin immunity index	1,035 - 3,230	2,232	2,251
Skin moisture index	0,218 - 0,953	18,854	18,855
Lost skin moisture	2,214 - 4,158	42,595	42,604
Red blood trace index under the skin	0,824 - 1,942	12,278	12,282
Skin elasticity index	2,717 - 3,512	1,255	1,267
Skin melanin index	0,346 - 0,501	3,917	3,914
Skin Keratinization Index	0,842 - 1,858	15,384	15,388
Eyes			
Pockets under the eyes	0,510 - 3,109	28,379	28,379
Collagen Eye Wrinkles	2,031 - 3,107	3,842	3,102
Dark circles	0,831 - 3,188	1,808	1,839
Lymphatic obstruction	1,116 - 4,101	7,861	7,859
subsiding	0,233 - 0,559	1,915	1,926
Edema	0,332 - 0,726	5,341	5,345
Eye cell activity	0,118 - 0,892	4,8	4,801
Visual fatigue	2,017 - 5,157	2,219	2,23
Collagen			
Eyes	6,352 - 8,325	23,258	8,315
Dentition (Dents)	7,245 - 8,562	4,055	4,063
Hair and skin	4,533 - 6,179	15,301	6,169
Endocrine system	6,178 - 8,651	45,077	8,641
C irculatory device	3,586 - 4,337	2,351	2,368
Igestif device	3,492 - 4,723	17,074	4,718
Immune system	3,376 - 4,582	8,911	4,581
Engine system	6,458 - 8,133	26,619	8,125
Fabric ofthe muscles	6,552 - 8,268	36,164	8,265
Big metabolism	6,338 - 8,368	15,757	8,358
Cellular detoxification	6,187 - 8,466	10,234	8,461
Reproductive device	3,778 - 4,985	9,109	4,975
Nervous system	3,357 - 4,239	2,059	2,054

Urinary device	6,256 - 8,682	46,912	8,672
Main and collateral channels			
Lung meridian	48,264 - 65,371	424,114	65,361
Meridian of the large intestine	56,749 - 67,522	214,753	67,512
Meridian of the stomach	0,481 - 1,043	0,031	0,031
Meridian of the heart	1,672 - 1,978	0,162	0,215
Meridian of the small intestine	0,192 - 0,412	5,539	5,529
Meridian of the bladder	4,832 - 5,147	27,934	5,142
Meridian of the kidneys	3,321 - 4,244	10,512	4,184
Meridian of the pericardy	1,338 - 1,672	1,282	1,293
Shaoyang triple burner meridian	0,669 - 1,544	7,458	1,534
Gallbladder Meridian	1,554 - 1,988	6,246	1,958
Liver meridian	1,553 - 2,187	7,259	2,177
Jen May	11,719 - 18,418	19,135	18,408
Meridian Governor	0,708 - 1,942	14,524	1,855
Vital meridian	6,138 - 21,396	121,802	21,387
Tai more	5,733 - 7,109	26,706	7,033
Heart and brain pulses			
Race index	60,735 - 65,396	600,525	600,54
Systolic volume (VS)	63,012 - 67,892	195,026	67,882
Peripheral cardiac resistance (RRT)	0,983 - 1,265	3,059	3,033
Pulse wave coefficient K	0,316 - 0,401	0,287	0,271
Cerebrovascular blood oxygen saturation rate	0,710 - 1,109	2,745	1,077
Volume of cerebrovascular oxygen ($CaCO_3$)	7,880 - 10,090	4,044	3,983
Cerebrovascular Oxygen Pressure (PaO2)	5,017 - 5,597	48,354	5,579
Blood lipids			
Blood viscosity	4,131 - 4,562	19,253	19,242
Total Cholesterol (CT)	1,833 - 2,979	0,809	1,843
Triglycerides (TG)	1,116 - 2,101	1,413	1,382
High-density lipoprotein (C-HDL)	1,449 - 2,246	9,123	9,147
Low-density lipoprotein (C-LDL)	0,831 - 1,588	7,301	1,578
Neutral fat (MB)	0,726 - 1,281	13,072	13,103
Complexes immuns circulants (CIC)	13,012 - 17,291	12,94	13,027
gynaecology			
Estrogènand	3,296 - 8,840	11,084	8,828
Gonadotropine	4,886 - 8,931	20,534	8,93
Prolactine	3,142 - 7,849	8,101	7,846
Progestérone	6,818 - 16,743	64,712	16,724
Vaginitis coefficient	2,204 - 2,819	15,159	15,173
Coefficient de PID	1,348 - 3,529	23,554	23,559
Appendicitis coefficient	2,301 - 4,782	26,83	26,838
Cervicitis coefficient	2,845 - 4,017	4,815	4,81

Ovarian cyst coefficient	2,012 - 4,892	41,143	41,16
to be			
Hyperplasia coefficient of the mammary glands	0,202 - 0,991	0,895	0,895
Acute mastitis coefficient	0,713 - 0,992	2,947	2,973
Chronic mastitis coefficient	0,432 - 0,826	5,477	5,462
Endocrine dyscrasia coefficient	1,684 - 4,472	8,313	8,32
Breast fibroadenoma coefficient	0,433 - 0,796	1,277	1,296
Menstrual cycle			
Hormone beta	2,942 - 3,407	29,623	3,401
Protein reflection	4,713 - 5,345	38,685	5,34
Fibrinogen	2,807 - 3,294	2,508	2,526
Sedimentation rate	6,326 - 8,018	8,278	8,013
TDAH			
Oxygen-hydroxy-phenyl-ethanol	1,163 - 2,206	13,449	2,201
GE Neurotransmitters	0,753 - 0,972	3,168	0,963
Vanilloid	0,232 - 0,981	5,238	0,978
Créatine kinase	0,150 - 0,240	1,071	1,074