Artemisia annua L. in the new COVID challenge

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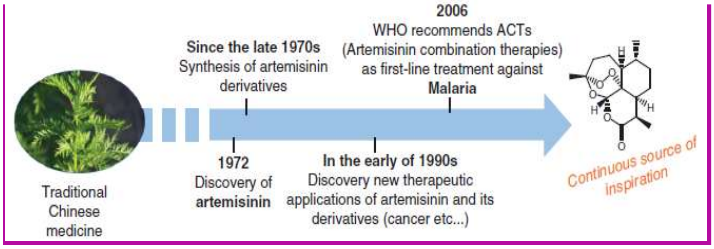
OBJECTIVES



In the group of active substances for fighting the SAARS2 pandemic there are two main curents for prescribing: antiviral and antimalarial agents.
From the antiviral class stands out Remdesivir but updated guidelines from the WHO in November 2020 include a conditional recommendation against the use of remdesivir for the treatment of COVID-19. The active search for an alternative points to the antimalarics.
Artemisinin is an endoperoxide sesquiterpene lactone, commonly used in the treatment of malaria, well known after the Nobel prise nomination, already used and widely applied in Chinese Traditional Medicine but less known yet and less studied for the occidental part of the world, especially Europe. Artemisinin has been shown to be effective when integrated into protocols for Borellia (Lyme disease) or even cancer.
The aim of our study is to evaluate the optimal administration of Artemisinin for its application as an active anti-COVID19 active drug, studying the efficiency and the safety of this substance.

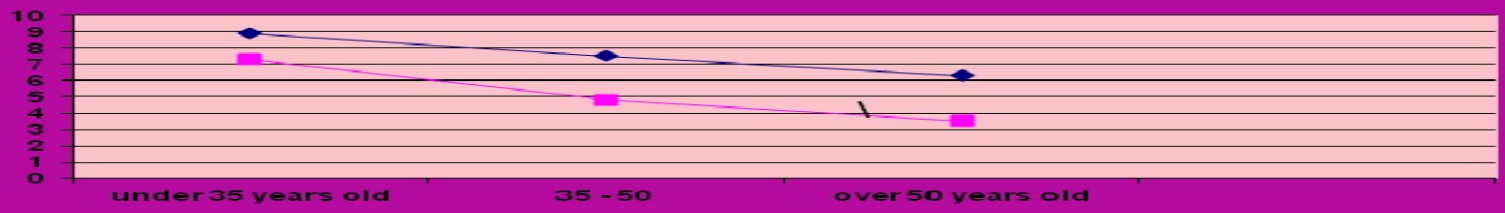
MATERIAL AND METHOD

1. **We used Artemisinin 100 mg vegetable capsules and its semisynthetic derivate Dihidroartemisinin- e**ach film-coated tablet contains 160 mg of piperachine tetrafosphate (as tetrahydrate; PQP) and artenimol 20 mg.
2. Volunteers. Our 3 groups of ages for testing were: under 35 years old, between 35 and 50 years, over 50 years old
3. Instant, rapid tests and PCR evaluation of the patients before and after introducing Artemisinin/Dihidroartemisinin in the treatment scheme
4. The single dose was given for three consecutive days, for a total of three doses, administered at the same time each day. The tablet should be taken orally, with water, without food. Each dose should be given at least 3 hours after the last meal. No food should be eaten within 3 hours of each dose.
5. Subjective evaluation through questionaires. At the end of the stationary or home treatment, Volunteers were asked to estimate their own opinion concerning the (possible) involution of their dynamic symptoms, without knowing the result of the clinical and analitical evaluation.

Doses should be determined based on body weight, as shown in the table below:

The weight body weight (kg)	Daily dose (mg) PQP	Artenimol	Tablet concentration and number tablets per dose
between 5 and <7	80	10	½ 160 mg / 20 mg tablet
between 7 and <13	160	20	1 tablet at 160 mg / 20 mg
between 13 and <24	320	40	1 tablet at 320 mg / 40 mg
between 24 and <36	640	80	2 tablets at 320 mg / 40 mg
between 36 and <75	960	120	3 tablets at 320 mg / 40 mg
> 75 *	1280	160	4 tablets at 320 mg / 40 mg

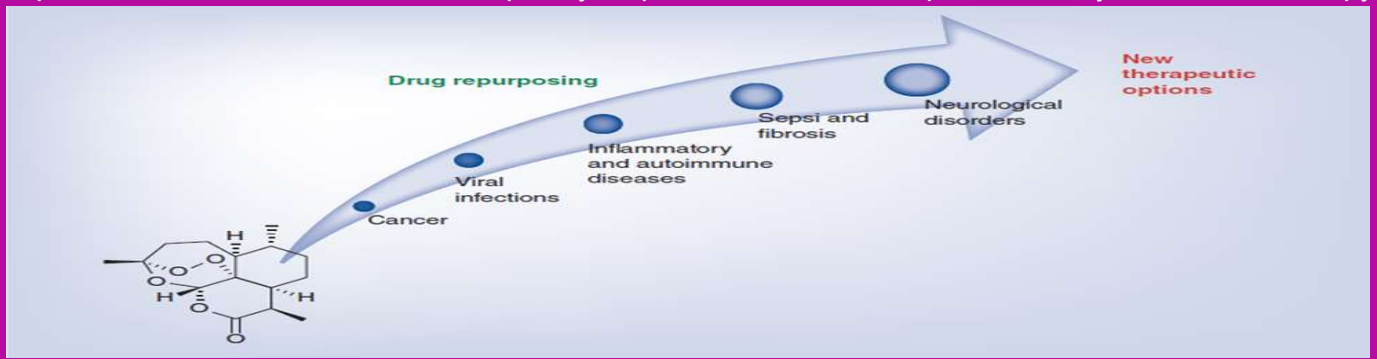
RESULTS



Comparison between the two types of drugs in the volunteer perceptions about the symptoms remision, Artemisinin (in blue) and Dihidroartemisinin (in pink).

CONCLUSIONS

Further studies about the pharmacological profile and mechanism of action of Artemisinin and its derivatives, as well as their performance in clinical trials, will hopefully help to reveal additional potentials beyond malaria therapy



It would be possible to increase the efficiency of Artemisinin by its association with other plant extracts for fighting the COVID 19 and its strains, even if their cellular pathway of action is different, and the benefit would be more