

The chef's big surprise is milk thistle (*Silybum Marianum*, Milk Thistle, wild artichoke, or according to the Bible: Lebanon thistle). • • The international literature is abundant (more than 3000 references on Pubmed), one can find a review on Kshirsagar A (2009). It contains at least 3 anti-Covid-19 substances :: Silybin (silibinin), quercetin and kaempferol. The story of milk thistle began with an incredible demonstration of its effectiveness in front of journalists: By first ingesting this thistle, it is then possible to eat Phalloid *Amanita* without feeling the effects or dying. This "I Weed!" therefore has a very high protective power in prevention against a deadly liver poison (fulminant hepatitis, requiring liver transplant). It is sold in a bioavailable (that is to say assimilable) orally (Siliphos®) form in the USA: Silybin + phosphatidylcholine. In Germany, the firm Madaus markets it as a hepato-protector (silibinin, Legalon®), but by the I.V. route, (Legalon SIL®) in particular against hepatitis C. Biermer M (2009) cured post-hepatitis C liver cancer with silymarin. In 1989, the use of 70% silymarin was approved by the European Commission to treat hepatic poisoning such as hepatitis and cirrhosis of the liver. In 2002, the WHO also recognized these uses. I had studied it as such, and found that its mechanism of action in hepatitis C was through the Fas Ligand -Fas pathway, because it is a mimetic molecular Fas Ligand (residues 20-SPWA P PGTVLPC-31), as well as diOH OH, phalloidin of Phalloid *Amanita* (TaLWA P CTV) and core virus of hepatitis C (110-TPgWSP-105 retro-inverso, and 125-TLTC-128), their common point being that they mimic the hepatotropic WSP pattern. Chemically, the indole nucleus tryptophan W and proline P mimic benzopyran and silybin phenyl, respectively: Silybin acts as a competitive inhibitor of FasL-Fas binding. (Tran GMK, ISHEID Toulon 2002; Tran GMK, GEMHEP 2013 (doc. Attached)). Lymphopenia from Covid-19 The FasL pathway is important to consider because it causes lymphopenia in the fatal severe form of H5N1 pulmonary influenza (Boonnak K, 2014), which bears some resemblance to the lymphopenia observed in Covid-19 (Ahmad T, 2020). In systemic lupus erythematosus, where lymphopenia is observed, FasL is abnormal, both in mice and in humans. silybin could therefore counter Covid-19 lymphopenia and avoid the forms serious. In addition, the FasL-Fas pathway amplifies the NF-kB, which is the conductor of the cytokine storm. Here too, silybin would act by inhibiting NF-kB on the storm • cytokine of the 2nd phase of COVID-19 .. In addition to these beneficial mechanisms on lymphopenia and cytokine storm in Covid-19, silybin also acts as a direct antiviral, through a number of mechanisms of action: Molecular docking (Pandit M, 2020) reveals that silybin (silibinin) is both: 1) anti-spike S (inhibits binding to ACE2) 2) inhibitor of Mpro protease and 3) inhibitor of RNA polymerase RdRp which is not surprising, because the 3 functionally target proteins have nothing to do with each other. This triple anti-viral versatility makes silybin a triple therapy in one molecule: 3 in one. It is completely unprecedented that a single molecule can simultaneously attack the virus at its 3 weak points, leaving it almost no chance of escaping the fatal encirclement. It is not toxic: Le Vidal mentions practically nothing (very rare gastralgias, diarrhea; exceptional allergies), since 1974. The attack on the spike S, preventing its binding to ACE2 is extremely interesting, because elderly subjects are known to be the prime targets of Covid-19 because they have a very large number of ACE2 receptors, unlike children who are not at all (or exceptionally) sensitive to them because they do not have this same receiver: Indeed the richness of this receiver increases in proportion to age. This is to say if the inhibition of the ACE2 spike is crucial for beat Covid-19: From March to June 2020, 96% of additional deaths from COVID-19 in Europe occurred in patients over the age of 70 (Yanez ND, 2020, Eurostat). In France, the milestone of 100,000 deaths has been

Écrit par MKG TRAN

Lundi, 07 Juin 2021 17:14 - Mis à jour Lundi, 07 Juin 2021 17:20

largely crossed (108,343 deaths on 20.5.21, according to Public Health France). The attack on the protease is also no less crucial, since each time an anti-protease was used as an antiviral, the epidemic was stopped: The 2 examples of the AIDS and hepatitis C epidemics are the most convincing proof of this. Molecular docking was crucial in the discovery of anti- anti-HIV-1 proteases. In Covid-19, it will be recalled that colchicine, which reduced Covid-19 mortality by 44% in the Canadian clinical study by Jean-Claude Late, has been retrospectively found to be effective in Docking studies (Serseg T, 2020). In addition, in the case of AIDS, it was the triple therapy that was decisive, preventing the appearance of drug resistance through this crossfire. Silybin has these 3 characteristics combined: it inhibits binding to ACE2, is an anti-protease and, the icing on the cake, is in itself a triple therapy. Formulas similar to silybin (silydianin, silycristin, silybinone, silyamandine, silybemine) (AbouZid SF, 2017) have not been studied in molecular docking. But as silybin constitutes 70% of the components of the plant, the other minor components can initially be put on hold. However, it would be important to know which of the 2 stereoisomers (A or B) of silybin is the most active on Covid-19. • • In addition to Silybin, Silybum Marianum also contains Quercetin and Kaempferol: Quercetin is anti-Covid-19. Quercetin is also found in the drug from the Phytokôbaz Laboratory in Martinique: Pik grass or Neurolaena Lobata. Here the mechanism of action is quite original and revolutionary: Inhibition Replication of Covid-19 (which is an RNA virus) involves blocking nucleotide synthesis. Quercetin inhibits DHODH (DiHydroOrotateDesHydrogenase) necessary for the production of the nucleotide precursor orotate. In the absence of orotate, the virus's RNA can no longer be synthesized and it dies. Kaempferol is anti-Covid-19. It is one of the components of Artemisia Annu, successfully used by Malagasy President Andry Rajoelina on his island of Madagascar (April 19, 2020). Milk thistle therefore acts like the 2 combined remedies, that of Martinique (Neurolaena Lobata, Quercetin) and that of Madagascar (Artemisia Annu, Kaempferol). In these days of Lent (2/15/2021), Christians will not be surprised to have at their disposal against Covid-19 a plant whose history deserves to be told: In her flight into the desert, pursued by the hordes of Herod's soldiers tasked with exterminating all the newborns, the Virgin Mary hid the Child in a bush and dropped a few drops of her milk on a thistle, making it recognizable by the white streaks of its leaves. On 2/18/2021, the KTO channel celebrates the anniversary of the apparition of the Virgin surrounded by 3 stars in the winter sky of Pont Main (Mayenne).

Given the exceptional nature of this antiviral, playing on three independent targets, a unique fact in medical research, we can predict an action on COVID-19, whatever the mutations. Obviously, a clinical trial remains to be carried out. The french ARS has been informed of this discovery. Unfortunately, given the fate reserved for ivermectin, by the international authorities (WHO) and national and European agencies, who by their refusal to recommend this treatment have shamelessly revealed their corruption. On the other hand, given the harmlessness of this treatment and the possibility of obtaining Slliphos, on the internet for a few tens of euros, it may be judicious to use this treatment for prevention as self-medication, while waiting for a courageous team sets up a clinical trial

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Écrit par MKG TRAN

Lundi, 07 Juin 2021 17:14 - Mis à jour Lundi, 07 Juin 2021 17:20

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