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A COMMENTARY: THE ANTIBIOTIC POT CALLING THE SILVER KETTLE BLACK

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Introduction

There is sufficient anecdotal and scientific evidence that organic antibiotics are: (1) being overprescribed, (2) becoming less effective as a means of dealing with bacterial infections, and (3) also responsible for making our drinking water more and more contaminated with waste pharmaceuticals.[1] This unwanted contamination is making it difficult, if not impossible to maintain the purity of drinking water to an acceptable standard. Silver is the most reflective material at most frequencies of the visible spectrum and as such there is no doubt that the 'organic antibiotic pot' only sees its own reflected blackness!

There is presently no convincing evidence to suggest that nano sized colloidal silver is a serious threat to the environment. Once returned to the soil, it re-forms to ordinary mineral silver aggregates joining the silver already present there. With that being the case, it begs the question why many researchers are trying to prove that nano sized colloidal silver is harmful to the environment. By contrast, the products generated by the international pharmaceutical industry are rarely considered in the same way. Even if there were some risks associated with colloidal silver, it would pale into insignificance when compared to the ever increasing threat of organic medicinal waste in the sewers and waterways. In order to maintain drinking water to an acceptable standard, water purification plants in the Netherlands have resorted to adding naturally filtered subterranean water to the normally used surface water. In a recent study, 12 pharmaceuticals and 7 transformation products were found to be present in the drinking water. Their concentrations were generally highest in the surface waters.[1]

The production of colloidal silver for therapeutic use not only differs from that used by industry for non-therapeutic use, but also in the way it is manufactured. This can take the form of chemical reduction of oxidised silver, e.g. silver nitrate, or by physical modalities, e.g. via electrochemically produced ionic silver being the most common. More recently, colloidal silver products from other methods of production have made their entry into the market. One of these methods is called the high voltage ablation. In yet another procedure, powdered bulk silver is just dumped into water. One producer uses electrical potentials as high as a few 100kV for arcing silver electrodes in water (Bredig's method). The 'just add water' product may in fact proven to be bio-toxic, according to tests on minnow embryos at Purdue University.[2] One manufacturer of powdered bulk silver states

in their brochure, "powdered silver is difficult to dissolve in water". It is hard to imagine that such products can in any way be compared to those derived from conventional production methods of producing medicinal colloidal silver in stable suspension. With such a diverse array of different production methods coupled with a complete absence of any standards or basic specifications as to what actually constitutes these various colloidal silvers, serious doubts must arise as to the quality and bio-efficacy of some of these poorly characterised colloidal silver products.

It can be readily shown that some of these production methods do not result in pure colloidal silver. In some of these dubious silver colloids, the silver content may be mostly ionic and in some cases also contaminated with various electrolytes, other metals such as copper, lead, etc or even arsenic. However, by exercising ultra-precise production control and engineering, such contaminations can virtually be eliminated. To really establish what constitutes medicinal quality colloidal silver it should be an obligation for all producers, to unequivocally display their specification as to its characteristics which should include particle size (and shape), Zeta potential, concentration, and the level of purity and contamination.

CONCLUSION

Colloidal silver promises to be a potent inorganic antibiotic material. For continued progress and the general acceptance of this material, Industries that produce colloidal silver must agree as to what actually constitutes colloidal silver and embrace the use of standard specifications. Until this happens, any technical advances are bound to remain slow and more controversial than it needs to be. This no doubt, will result in yet more continued flawed and misleading reports on its bio-efficacy and inappropriate claims of toxicity.

REFERENCES

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