

Silver Sol Gel Completely Destroys Disease Causing Yeast and Bacteria In Minutes

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Abstract

Silver Sol Gel was tested against numerous bacterial and yeast strains (Candida albicans, Staphylococcus aureus, MRSA, Pseudomonas aeruginosa, Escherichia coli) to determine how well Silver Sol Gel would kill a broad spectrum of disease causing pathogens. This was measured by percent reduction in pathogen, LOG reduction. Results indicate that Silver Sol Gel completely destroyed all forms of bacteria tested to a LOG 5 reduction. This is significant because an FDA category one wound care approval requires the approved product to be able to achieve a 1 log reduction (90% kill) in 7 days of contact, and a 3 log reduction (99.9% kill) within 14 days. The Silver Sol achieved a 4-5 log reduction (99.999+ kill) in the first hour of contact. The FDA further requires an approved product to be able to kill 500,000 bacteria. The Silver Sol Gel was tested at 3-5 times the required amount of the pathogenic load, killing between 1,500,000 and 2,500,000 of the deadly pathogens within the first hour.

In this study Silver Sol Gel far surpassed FDA required kill percentages by killing all yeast and bacteria tested at a significant level of 99.99900 %. This is an improvement of over 10,000 times (log 5) better kill rates than what would be required to be classified as an effective antimicrobial. It accomplished this killing in less than one hour.

Silver Sol Gel appears to be one of the best and most broad spectrum antibacterial agents and has been proven to produce no resistance (Current Science, 91: 2008). Because Silver Sol gel kills so quickly and completely (99.99900 %) without causing bacterial resistance, it could be successfully used everyday without creating the problems of mutation and resistance created by antibiotics.

Review of Literature

History

Silver has been used as medicine and preservatives by many cultures throughout history. Greeks used silver vessels for water purification. Pioneers trekking across the west used it to keep their water safe and prevent dysentery, colds and flu. They actually put silver dollars in their milk containers and wooden water casks to retard the growth of bacteria. Today, silver water purification filters are used by Switzerland, international airliners. swimming pools as disinfectants (1).

Medicinal silver compounds were developed in the late 1800's and there was widespread use of silver compounds and colloids prior to 1930. By 1940 there were approximately 48 different FDA approved silver compounds marketed being used to treat virtually every infectious disease known to man. These were available in oral, injectable and topical forms. They carried such names as: Albargin, Novargan, Proganol and Silvol.

(9). The historical facts support what we have proven in this study; that silver has germicidal properties. Since 1973, Silver has been shown to have topical activity against 22 bacterial species (643 isolates) including gram positive and gram negative bacteria

(10). Silver Sol is approved as a homeopathic drug by the food and drug board of Ghana (15), and the gel functions as an antibiotic more or less equal to pharmaceutical drugs but is unique because bacteria do not mutate or become resistant to Silver Sol (17).

Claims Found in United States Patent # 7135195:

Silver Sol has hundreds of approved claims in the patent. Some of the most significant pathogens killed include: MRSA, SARS, malaria, anthrax, gram negative bacteria, gram positive bacteria, nosocomial infections, viruses including hepatitis B, HIV, influenza, and over 143 individual uses covering bacteria, viruses and fungus. Silver Sol can be used as an internal and external disinfectant because it passes through the body unchanged, so it produces no dangerous metabolites and is cleared 99% by the next day. (11).

Anti-Viral Patent Claims

Destroys reverse transcriptase and DNA polymerase types of viruses (11) US Patent #7135195).

Anti-Bacterial Patent Claims

Kills gram negative bacteria including i.e. salmonella (11).

Kills gram positive bacteria i.e. Staphyococcus aureus (11).

Kills nosocomial infections i.e. pseudomonas aeruginosa, and MRSA (4).

Proven to kill bacteria including Gram positive and gram negative bacteria, without destroying healthy lactobacilis (flora) (4, 11).

Kills B subtilis (99.97% in three hours) (11).

Kills Yersinia pestis/plague (99.999999% in 6 minutes) (11).

Exhibits equal or broader spectrum of activity than any one antibiotic tested (17).

It should be noted that no organism was found to be resistant to silver Sol (17).

Safety

Silver Sol Gel has been rigorously tested by using ingested, injected and cytotoxic experiments. These studies have found silver sol to be absorbed, distributed, excreted and pass through the body unchanged (The very definition of non-toxic).

Materials and Methods

Silver Sol Gel (24 ppm) were prepared in triplicate and placed in tubes containing 10 ml of each sample (Candida albicans, Staphylococcus aureus, MRSA, Pseudomonas aeruginosa, Escherichia coli). The tubes were inoculated with 0.1 ml of the test

organism and mixed thoroughly. At one hour, 24 hours, and 7 days of exposure 1.0 ml aliquots of the test suspension were removed and added to 9 ml of neutralizer. The tubes were mixed thoroughly and serial dilutions were made in the appropriate neutralizer and assayed using a standard spread plate method, Bacterial samples were plated onto SCDA for bacteria and SDEX for yeast and incubated at 20-25 degrees Celcius for 3-5 days. Log reduction and percent neutralization were calculated using standard equations.

Results

Silver Sol Gel completely kills *Candida albicans*, *Staphylococcus aureus*, MRSA, *Pseudomonas aeruginosa*, and *Escherichia coli*.

Table 1.0 Results for ASAP Ultimate Skin and Body Care

Organism	Exposure time	Percent Reduction %	LOG 10 Reduction
Candida	1 hr	>99.998544	>4.84
	24 hr	>99.998544	>4.84
	7 days	>99.998544	>4.84
Staphylococcus aereus	1 hr	>99.999133	>5.06
	24 hr	>99.999133	>5.06
	7 days	>99.999133	>5.06
MRSA	1 hr	>99.998696	>4.88
	24 hr	>99.998696	>4.88
	7 days	>99.998696	>4.88
Pseudomonas aeruginosa	1hr	>99.999102	>5.05
	24 hr	>99.999102	>5.05
	7 days	>99.999102	>5.05
E.coli	1 hr	>99.998990	>5.00
	24 hr	>99.998990	>5.00
	7 days	>99.998990	>5.00

Silver Sol Gel completely killed the bacteria and yeast at an average LOG 10 reduction of 5.0 within one hour.

Conclusions

Silver Sol Gel quickly and completely destroys all the yeast (*Candida albicans*) and bacteria (*Staphylococcus aureus*, MRSA, *Pseudomonas aeruginosa*, *Escherichia coli*) within one hour. It is remarkable that this substance can destroy the deadly pathogens that cause some of the most serious and life threatening diseases afflicting mankind. The results suggest that silver Sol could be successfully used every day for prevention of disease and epidemics. The Gel contains no alcohol so it won't dry out the skin. The topical use of this gel should safely kill all contagious pathogens tested, especially those transferred by hand contact and poor hygiene.

References

1. Clear Springs Press, Colloidal Silver
2. Fox, C.J. Jr., 1968. Silver sulfadiazine, a new topical therapy for Pseudomonas burns. Arch. Surg. 96:184-188.
3. Fox, C. J., 1969. Control of Pseudomonas infection in burns by Silver Sulfadiazine. Surg.Gynecol. Obstet. 128:1021-1026.
4. U.S House International Relations Committee, 2005. Written testimony on Black Mold., and MRSA.
5. Illinois Institute of Technology. 2001. Anthrax.
6. Robinson, R., 2003. Bactericidal activity of ASAP Silver Solution on Yersinia Pestis, the etiological agent of plague. Department of Microbiology, Brigham Young University.
7. U.S. House Relations Committee. 2005. Written testimony on Malaria.
8. Hafkine, A., 2003. ASAP antiviral activity in Hepatitis B; DNA Polymerase Inhibition, Reverse Transcriptase Inhibition. Hafkine Institute for Training, Research and Testing.
9. Colloidal Silver: Medicinal Uses.
10. Carr, H., Wlodowski, T., 1973. Department of Microbiology, College of Physicians and Surgeons, Columbia University, New York, New York. Antimicrobial Agents and Chemotherapy. 10:585-587).
11. United States Patent Office. Patent # 7135195, Nov. 2006.
12. Merck Index., 1999. Silver. 1:645.
15. Ghana Food and Drug Board New drug approval, 2007
16. EPA report and guidelines #D011
17. DeSouza, A. Current Science, 91(7), 2006. Bactericidal activity of combination of Silver-Water dispersion with 19 antibiotics against seven microbial strains.
18. Institute for Antiviral Research. Silver Sol and H5N1 Influenza, 2005.
19. Nelson Labs, Brigham Young University. 2005.
20. Surgeons scrub test. 2005.
21. University of Cal Davis. Silver Sol and healthy intestinal flora. 2005.