

Guaviderm



Overview

Pyoderma is one of the most common disorders encountered in specialized dermatology centers and by primary health care physicians in developing countries with a prevalence of 2-34%. The most common etiologies of pyodermas include beta-hemolytic streptococcus and staphylococcus. These bacterial skin diseases may lead to more serious complications such as cellulitis, lymphangitis and suppurative lymphadenitis which may occur in as many as 10% of patients with impetigo. Toxic mediated diseases include toxic shock syndrome and post streptococcal glomerulonephritis. Other uncommon complications include scarlet fever, erysipelas, guttate psoriasis, pneumonia, osteomyelitis, septic arthritis and bacterial endocarditis. Methicillin resistant Staphylococcus aureus (MRSA) in the Philippines is already >50%. There are few topical antibiotics which are able to eradicate MRSA.

SOLUTION

The answer is a natural antibacterial ointment, guava or Psidium guajava called Guaviderm. Guava plant parts have been used by traditional healers to treat wounds and prevent infections after circumcision and childbirth. So we formulated an ointment from this. Tests on our formulation have shown it has compounds, such as quercetin which kill skin pathogens such as Streptococcus and Staphylococcus, even the methicillin resistant strains. Our experimental animal models have shown that it inhibits the growth of bacteria to cure infected skin.

Guaviderm is indicated for the following:

- Treatment of localized superficial bacterial infections;
- prevention of wound infection following minor surgical or cosmetic procedures;
- prevention of wound infection in minor wounds/injuries/abrasions to the skin;
- treatment of secondarily infected eczematous dermatitis;
- treatment of secondarily infected scabies lesions;

COMPARISON WITH COMPETITORS

Other topical treatments for skin infections include Mupirocin, Fusidic acid and Triple Antibiotic ointment. The following shows comparisons among the products. In summary, Guaviderm is cheaper, has activity against MRSA, has less chance of resistance due to multiple antibacterial compounds in the ointment.

	Herbal Ointment	Mupirocin	Fusidic Acid	Retapamulin	Neomycin, Bacitracin Polymixin
Kills MRSA	**** *	****	***	-	-
Cost of 15gm (pesos)	100	500	170	2,115	285
Compounds	multiple	single	single	single	multiple
Antimicrobial Resistance	none	Low but increasing	high	low	Driver of resistance

MARKET TRENDS AND OPPORTUNITIES

Bacterial skin infections are very common in the Philippines. Heat and humidity contribute to the growth of bacterial skin infections. Thus, Guaviderm being a natural and Philippine made product would rapidly gain wide acceptance and be used even as an over-the counter treatment or be prescribed by physicians. We hope to capture up to 1/3 of the topical antibiotic market which would be about \$15 million.

CUSTOMER BENEFITS

Guaviderm is an affordable, herbal medicine to treat bacterial skin infections. It was developed by Filipino researchers from Filipino plants to boost the Philippine Pharmaceutical Industry, provide new cash crops for farmers and offer Filipinos medical and financial benefits.

STATUS

We are preparing to file our application for patent for our invention. We hope to gain more government funding to validate its use in humans through clinical trials. We will then license this out to different pharmaceutical companies in the Philippines, as we have successfully done with our other herbal medicines.

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