

# 18<sup>th</sup> Global Dermatology Congress

Oct 25-26, 2018 | Budapest, Hungary



**Ajay Kumar Singh**  
DSL Clinics, India

## Lymecycline in Dermatology

Lymecycline is a semi synthetic tetracycline antibiotic with improved oral absorption, enhanced tissue penetration and slower elimination relative to tetracycline. Lymecycline has been in clinical use for several decades in the proposed indications and has a well –established benign profile. Lymecycline generally bacteriostatic against a wide variety of organisms both gram positive and gram negative. These drugs enter gram negative bacteria by passive diffusion through hydrophilic channels formed by the porin proteins of the outer cell membrane and by active transport via an energy-dependent system that pumps all tetracyclines across the cytoplasmic membrane. Entry of these drugs into gram positive bacteria requires metabolic energy, but is not as well understood. This system is also believed to exist in gram positive bacteria.

### PHARMACOKINETICS

Lysinomethyl-tetracycline

Plasma t<sub>1/2</sub>: 8 (7-14) hrs

Time to peak concentration (t<sub>max</sub>): 3 hrs (after 300mg PO)

Peak concentration (C<sub>max</sub>): 2.1 mg/L (after 300mg PO)

Around 30% of active drug excreted unchanged in urine

Water soluble prodrug of tetracycline (Better oral absorption)

### PHARMACODYNAMICS

Lymecycline is a tetracycline broad-spectrum antibiotic

Antibacterial and anti-inflammatory effects

It inhibits ribosomal protein synthesis by preventing the association of aminoacyl-tRNA with the bacterial ribosome (30S subunit)

Bacteriostatic (Reversible association with ribosome)

Spectrum of action: Gram-positive and negative bacteria, chlamydiae, mycoplasmas, rickettsiae, spirochaetes, protozoan parasites (P. falciparum, Entamoeba histolytica, Giardia lamblia, Leishmania major, Trichomonas vaginalis, Toxoplasma gondii)

### INDICATIONS

Acne, Rosacea, Perioral dermatitis, Chlamydia trachomatis infection, Reactive arthritis, Hidradenitis Suppurativa, M. marinum infection, Progressive macular hypomelanosis, Frontal fibrosing alopecia, Pyoderma gangrenosum

Notes:

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## CONTRAINDICATIONS

Hypersensitivity to tetracyclines.

Pregnancy or lactation in women breast feeding infants.

Advanced renal/hepatic insufficiency.

Concurrent treatment with oral retinoids

It has seen that during the treatment duration the acne lesion especially nodule and cysts have responded very well from Lyme cycline in comparisons to Doxycycline moreover patients who developed some resistance to other systemic drugs, responded wonderful by Lyme cycline 408 mg. There is also not seen any Phototoxic reaction with Lyme cycline which are usually seen with Doxycycline. Patients have fewer side effects by Lyme cycline. Lyme cycline is also found to be effective in patients with mild inflammatory papules and Pustules.

## DOSAGE & ADMINISTRATION

**Adults:** For other infections, the usual dosage is Lyme cycline 408mg (equiv. tetracycline base 300mg) twice a day. If higher doses are required, 1224- 1632mg (3-4 capsules) may be given over 24 hours.

## Biography

DR AJAY KUMAR SINGH has completed medical graduation from Agra, India at the age of 26 and Dermatology, Venereology, Leprosy Postgraduation from Pondicherry University, 2008, India. He is the Chief Consultant Dermatologist & director of DSL clinics, New Delhi, INDIA, He has presented various dermatology, venereology papers at national and international congresses-EADV, IADVL. He was associate editor to write a book on Paediatric Dermatology. Had completed laser course from Harvard Medical School, Boston, USA and advance cosmetic dermatology trainings from, London, Germany & Slovakia. EADV fellowship winner at Krakow, Poland.

ajayjipmer@gmail.com

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