**WCK 771 - Eradication Efficacy for Methicillin Sensitive (MSSA) and Resistant Staphylococcus aureus (MRSA) Skin Abscess**

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**ABSTRACT**

**Background:** WCK 771 is a potent anti-staphylococcal (FQ) active against FQ resistant staphylococci and has entered Phase I clinical trials in India.

**Objective:** Mouse skin abscess model: A group of 18 Kunming-compliant Swiss mice for each treatment regimen (23-26 g) was infected with 10^5-10^6 CFU/mouse with S. aureus 5044 strain (MSSA, MRSA 32 and MRSA 5027) by s.c. route at the right groin region. For MSSA infection, treatment 1 h post-infection was BID 3 x 2 days and comparator drugs were moxifloxacin (Mox), vancomycin (Vanco), linezolid (LNZ) and amoxicillin (Amox). For both MRSA infections, the treatment was TID x 1 day excluding Amox. Abscesses were removed 24 h after the last dose, homogenised in 2 ml saline and CFU per abscess was determined.

**Results:** Mean log CFU reduction/abscess

| Table 1: WCK 771 Effect Against Staphylococcal Strains |
|---------------------------------|----------|
| **COMPOUNDS** | **MIC (mg/ml)** |
| **WCK 771** | **S. aureus Smith (MSSA)** | **MRSA 32** | **MRSA 5027** |
| Moxifloxacin | 0.025 | 3.12 | 0.8 |
| Vancomycin | 1.56 | 1.56 | 1.56 |
| Linezolid | 3.12 | 3.12 | 3.12 |
| Amoxicillin | 0.2 | 0.2 | 0.2 |

*With respect to initial CFU load at the time of treatment onset*

**Conclusion:** WCK 771 shows excellent eradication potential for the treatment of skin & soft tissue infections caused by MSSA and MRSA.

**REFERENCES**


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**Danielle McClellan, 11/24/2011**

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**INTRODUCTION**

S. aureus is one of the major causative agents responsible for skin and soft tissue infections such as impetigo, boils, carbuncles, erysipelas, cellulitis, furuncles, furunculosis, mastitis, pyodermas, erythrasma & bacteremia. This single organism is responsible for one-half of all skin infections. Moreover, staphylococci are frequently involved in infections of surgical wounds, mortality from S. aureus bacteremia ranges from 11 to 68% and this figure is continuously increasing. However, the matter of major concern is the challenge posed by difficult-to-treat multidrug-resistant MRSA strains. The percentage of MRSA in hospital infections rose from 15.3% in 1997 to 34.7% in 1999. WCK 771 is an investigational anti-MRSA pneumococcal & currently in phase I clinical trials in India.