LTX-109 is Active against CA-MRSA (USA300) and S. pyogenes in a Mouse Skin Infection Model

Methods

Superficial skin lesions were made by a tape-stripping and scalpel blade-cut injury method. Infection was established by adding bacterial suspensions of CA-MRSA (USA300) or S. pyogenes. Groups of mice were treated with LTX-109 22 hrs from the start of the infection. Skin biopsies were sampled for bacterial tissue load at the end of the experiment. Log10 CFU/mouse was determined.

Results

- LTX-109 demonstrates a significant reduction in Log10 CFU/mouse load compared to the comparator. The effect was superior to Bactroban®, Altabax®, and Fucidin®.

Conclusions

- LTX-109 demonstrates a significant effect already after a single day of treatment probably due to the bactericidal mode of action of the drug.
- The effect was superior to Bactroban®, Altabax®, and Fucidin®.
- LTX-109 appears to be a valuable drug for treatment of Gram (+) skin infections including those caused by CA-MRSA and S. pyogenes.
- The drug has been tested in Phase I and two Phase IIa trials with good tolerance, minimal systemic bioavailability.
- LTX-109 has demonstrated Proof-of-Concept in demunition of nasal MRSA / MSSA.
- Further Phase II studies are planned to demonstrate efficacy in larger patient populations.