

Models for lapin septic arthritis and cryptic arthritis were developed. Joint infection was determined using several criteria such as sluggishness, loss of appetite, loss of weight, joint swelling, lameness and histopathology. These criteria were applied using two infection routes: the intravenous (IV) and intrarticular (IAI).

Infection through the intravenous route showed marked joint swelling cell wall defective rather than intact state. It failed to induce both, lameness and loss of appetite with minimal weight loss of around 50gm. In the intrarticular route, however, there were appetite loss, weight loss, mild sluggishness and marked joint swelling in CWD rather than intact. Intact *Staphylococcus aureus* in IV was arthropathic but by IAI was non-arthropathic. Cell wall defective *Escherichia coli* was arthropathic in both IV and IAI. Both intact and CWD *E.coli* were arthropathic by IAI. Thus human arthropathic *E.coli* isolates showed lapin arthropathy both as intact and cell wall defective but in CWD state there were more severe clinical outcomes, while, human arthropathic *S.aureus* isolates showed lapin arthropathy in cell wall defective state but not in intact state.