

Perioperative Treatment with Bactericidal/Permeability-Increasing Protein (rBPI₂₁) in Major Liver Surgery: A Concise Summary

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Abstract

Introduction: Major hepatic resections are still associated with considerable morbidity. Gut-derived bacteria and bacterial endotoxin are considered to play a central role in the pathophysiology of complications. Experimental studies suggest that bactericidal/permeability-increasing protein (BPI), which has both antibacterial and endotoxin-neutralising properties, can reduce postoperative complications. **Material and Methods:** A phase II, double-blind, placebo-controlled, multicentre, dose escalation trial was conducted in patients undergoing major liver resection, and clinical outcome, infectious complications, plasma amino acid patterns, coagulation and fibrinolytic cascade systems and neutrophil functions were compared between the two treatment groups and an extra group of patients undergoing major abdominal non-hepatic surgery. **Results:** Drug administration in this patient group was safe, and resulted in a significant reduction of infectious complications. Furthermore, beneficial effects were found in the postoperative amino acid ratio and fibrinolytic cascades, and rBPI₂₁ preserved leukocyte functions. **Conclusion:** Administration of rBPI₂₁ in patients undergoing major liver resection is well tolerated and results in improvement of both clinical and biochemical parameters.

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