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[O105] RIFAMPIN COMBINATION THERAPY IN EARLY STAPHYLOCOCCAL PROSTHETIC JOINT INFECTIONS: A RANDOMIZED CONTROLLED TRIAL

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Aim: Prosthetic joint infection (PJI) is a much feared complication to arthroplasty with significant patient morbidity. Rifampin is increasingly used in staphylococcal PJIs treated with debridement and retention of the prosthesis. The evidence supporting rifampin combination therapy in PJIs is limited due to the lack of controlled studies. The aim of this study is to evaluate the effect of adding rifampin to conventional antimicrobial therapy in early staphylococcal PJIs treated with debridement and retention.

Method: In this multicentre randomized controlled trial, 99 patients with PJI after hip and knee arthroplasties were enrolled. All patients underwent a standardized surgical debridement. 65 patients had PJI caused by staphylococci and further included in the study. They were randomly assigned to receive rifampin or not in addition to standard antimicrobial therapy with cloxacillin, or vancomycin in case of methicillin resistance. They received parenteral antibiotics for two weeks, then oral antibiotics for 4 weeks. In case of methicillin resistance, vancomycin was administered i.v. for 6 weeks. The primary end point was no signs of infection after 2 years follow-up.

Results: 48 patients were included in the final analyses. There were no differences in patient characteristics or co-morbidities between the two groups. There was no significant difference in remission rate between the rifampin combination group (17 of 23 (74%)) and the monotherapy group (18 of 25 (72%)), relative risk 1,03; 95% confidence interval 0,73 to 1,45, p=0.88). Five patients aborted the rifampin treatment because of adverse effects and continued with monotherapy. All five had complete remission. These patients were not included in the final analysis.

Conclusions: Our study has not proven a statistically significant advantage by adding rifampin to the antibiotic treatment in staphylococcal PJIs. Bigger studies on the subject are needed. Our good success rate raises the question whether the standardized revision surgery is the key to success in these infections rather than rifampin.