Safety and efficacy of Temsirolimus in combination with Bendamustine and Rituximab in relapsed mantle cell and follicular lymphoma.

Abstract:
In this phase I/II study, we explored the combination of Temsirolimus with Bendamustine and Rituximab (BeRT) in patients with r/r follicular lymphoma (FL) or mantle cell lymphoma (MCL). Patients with 1-3 prior therapies received Bendamustine (90 mg/m$^2$, day 1+2) and Rituximab (375 mg/m$^2$, day 1) with Temsirolimus in doses from 25 to 75 mg added on day 1, 8, 15 of a 28-day cycle. Fifteen (11 MCL, 4 FL) patients were included in the phase I. Median age was 73 years and median pretreatment number was 2. No formal dose-limiting toxicity was observed. Dominant non-hematological side effects were fatigue in 11 (73%), nausea in 9 (60%), mucositis in 7 (47%) and vomiting in 6 patients (40%). Cough, diarrhea, pyrexia and rash were observed in five patients (33%) each. Grade 3/4 events included leukopenia in 6 (40%), neutropenia in 4 (27%) and thrombocytopenia in 2 patients (13%). An objective response was observed in 14/15 patients (93%), including 5 complete response (33%; all MCL). After a median follow-up of 19 months, 67% of patients are without signs of progression. Temsirolimus can be safely added to BR with promising preliminary activity. Recruitment in phase II is ongoing.