Abstract # 11105

TITLE: MCS110, AN ANTI-CSF-1 ANTIBODY, FOR THE TREATMENT OF PIGMENTED VILLONODULAR SYNOVITIS (PVNS)

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ABSTRACT BODY:

Objective:

MCS110, a monoclonal antibody against macrophage colony stimulating factor CSF-1, was tested for the treatment of pigmented villonodular synovitis (PVNS), a rare joint tumor mainly located in the knee, shoulder, hip or elbow. PVNS is driven by an overexpression of CSF-1 most likely due to a gene translocation. Tumor tissue mainly consists of CSF-1R bearing macrophages, which are attracted by locally high levels of CSF-1.

Methods:

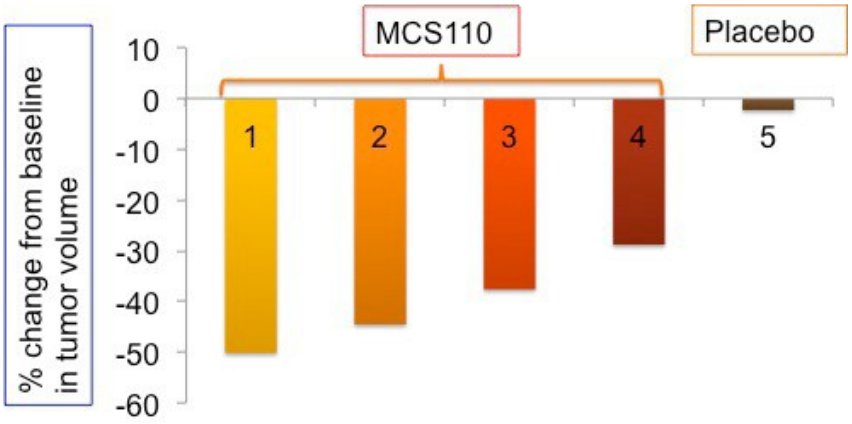
Newly diagnosed or relapse patients with PVNS were enrolled in this single dose, randomized, placebo controlled multi-center study. The objectives of the study were to assess safety, tolerability, and efficacy of MCS110 in reducing the tumor volume from baseline to 4 weeks post-dose measured by MRI. MRI volume was determined centrally by two independent, blinded radiologists (summation of area x slice width for all proton density slices) and geometrical mean values were used for calculation.

Results:

Three female and two male patients with PVNS in the knee, shoulder or elbow with a mean age of 45.2 years were treated with a single dose of 10 mg/kg MCS110 (4) or placebo (1). MCS110 was well tolerated, with no drug related adverse events (AEs). AE's were mild and uncommon. Tumor volume, determined 4 weeks after a single dose of 10 mg/kg MCS110 or placebo demonstrated a mean reduction in tumor volume by MRI of 40% in MCS110 treated patients versus 2% in the single placebo dosed patient. In parallel, clinical symptoms (joint range of motion) improved and the expected pharmacodynamics effects, such as CD14+ monocyte and

CTX-I reduction and transient CK increase were observed in MCS110 treated patients.

Conclusion:
MCS110 was well tolerated and demonstrated a clear reduction of PVNS tumor volume. The study will continue with a multiple dose administration protocol of MCS110 with a goal of tumor ablation.



Tumor volume change

Tumor volume -29%, MRI knee, Sagittal 2D PD-w fast Spin Echo Fat Suppression