Purpose: To evaluate photodynamic therapy (PDT) combined with the preferential the cyclooxygenase-2 (COX-2) inhibitor, nabumetone in the treatment of the neovascular age-related macular degeneration (ARMD).

Methods: A prospective, double-blind, randomized study on 60 patients with subfoveal CNV secondary to ARMD without any previous treatment. Patients were divided into a nabumetone or placebo group. The main endpoints were the change of best-corrected visual acuity (BCVA), central macular thickness (CRT) and number of required PDT treatments

Results: In the nabumetone group, 27 patients (90%) and 28 (93%) in the placebo group completed the follow-up of 12 months. In the nabumetone group, the mean CRT decreased from 332 μm (SD 68 μm) to 220 μm (SD 46 μm). In the placebo group, CRT decreased from 331 μm (SD 72 μm) to 254 μm (SD 61 μm). The mean BCVA was 0.68 log MAR (SD 0.22 log MAR) in the nabumetone group and 0.62 log MAR (SD 0.23 log MAR) in the placebo group at baseline. This stabilised in the placebo group to 0.66 log MAR (SD 0.33) but deteriorated in the nabumetone group to 0.86 logMAR (SD 0.41 logMAR). There was a significant reduction in the number of required PDTs in the nabumetone group, but significant progression of the RPE atrophy area.

Conclusion: Combined PDT with oral intake of the COX-2 inhibitor, nabumetone reduced the number of required PDT retreatments, but worsening BCVA caused by macular atrophy progression. Therefore the combination of the PDT with the nabumetone is not recommended.