was applied to detect the expression of α-smooth muscle actin (α-SMA), proliferating cell nuclear antigen (PCNA), TGF-β1, p-Smad2/3 and Smad7.

**Results** MT, LD, MT/LD, α-SMA, PCNA and collagen fibre area percentage of carotid arteries in the model group were higher than those in the sham-operated group (p<0.01), and TGF-β1 and p-smad2/3 were significantly increased compared to sham-operated group, Smad7 was much lower in the model group (p<0.01). Single therapy of enalapril or amlodipine decreased MT, MT/LD and the protein expression of TGF-β1, p-Smad2/3, and increased the expression of Smad7. The combination treatment of enalapril and amlodipine was significantly better than that in single amlodipine group (p<0.05), but not in single enalapril group.

**Conclusions** In RHR, TGF-β1/Smads pathway may participate in the mechanism of carotid artery remodelling. The enalapril or amlodipine could attenuate carotid remodelling of RHR through the intervention in TGF-β1/Smads pathway. The combination of enalapril and amlodipine is better than amlodipine therapy.