In most cases, the arrhythmogenic substrates of atrial fibrillation (AF) have not been present primarily, but were constructed under various pathological stimulations. This concept is understood as atrial remodeling and the therapies aiming suppression or reverse of this remodeling is named up-stream therapy. In the experimental studies utilizing middle-sized animals, goat, canine, etc., the AF inducibility was suppressed by angiotensin receptor blocker (ARB), angiotensin converting enzyme inhibitor (ACEI), statins or few types of ion channel blockers. Especially, ARB was the most expected medicine as the up-stream therapy because various changes including tissue fibrosis were successfully suppressed by ARB. Even in clinical cases with heart failure, a meta-analysis of the results of several mega-trials exhibited the reduction of new onset AF or incidence of AF by ARB/ACEI. However, the recent prospective studies with the AF incidence as the primary end point have failed to document positive result for ARB as the up-stream therapy. By referring these results, we should understand that ARB is not a magic medicine for the up-stream therapy, but a principal medicine for the treatment of heart failure, and probably it will be useful to control AF through appropriate therapy for the underlying heart disease. In the presentation, I would like to reevaluate these results with our own data to clarify the role of the up-stream therapy for AF.

Keywords: atrial fibrillation, up-stream therapy