There was a trend to a decrease in LA-EV and LA-FV post-conversion to NSR (p < 0.05 for group 1 and all pts combined). The left ventricular ejection fraction post-EV was not significantly different between groups (56 ± 11% vs 46 ± 9%, p = NS). Spontaneous contrast was present in 6 pts in group 1 (83%) and in group 2 (44%) at baseline and worsened in 1 pt in group 1 (14%) and 3 pts in group 2 (33%) only after conversion to NSR. One pt in group 1 and 3 pts in group 2 had no spontaneous contrast at baseline and developed spontaneous contrast only after conversion to NSR. In conclusion: 1) Decreased left atrial mechanical function occurs after conversion to NSR. 2) Left atrial mechanical function is not significantly decreased after ineffective EV attempts. 3) Spontaneous contrast was found more often in pts requiring less energy for cardioversion. 4) Spontaneous contrast worsened more often in pts requiring more energy for conversion to NSR and worsened only after conversion to NSR. 5) These findings suggest that left atrial remodeling and worsening of flow is due to conversion to NSR and not secondary to ineffective EV attempts.