LGE identified using an IIR threshold of 1.2 and SD method at intensity values 3 SD above mean blood pool signal.

**Results:** Mean LGE burden, calculated as percentage of LA surface area, varied widely between patients with PsAF. LGE area differed significantly between the two methods, with higher mean LGE using the IIR method compared with the SD approach (42.15 ± 17.81% vs. 17.12 ± 12.25%, p < 0.005) and poor agreement on interclass correlation coefficient analysis (ICC = 0.33). However, despite the intra-patient differences, the LGE burden correlated well between the two approaches (r = 0.82, p < 0.005). When categorised according to the Utah LGE classification (stage I 0-10%, stage II 10-20%, stage III 20-30%, stage IV > 30%), mean stage using IIR vs. SD was 3.50 ± 1.12 vs. 2.20 ± 1.14 (p < 0.05). Eight of ten (80%) subjects were assigned to different classification stages depending on the quantification technique employed.

**Conclusion:** The extent of LA LGE varies significantly amongst PsAF patients. LGE burden and hence Utah classification stage is highly dependent on the quantification approach utilised. Given LGE quantification may aid prognostication and patient selection for rhythm control intervention, further validation studies are required to identify the optimal technique and correlate with clinical outcomes.