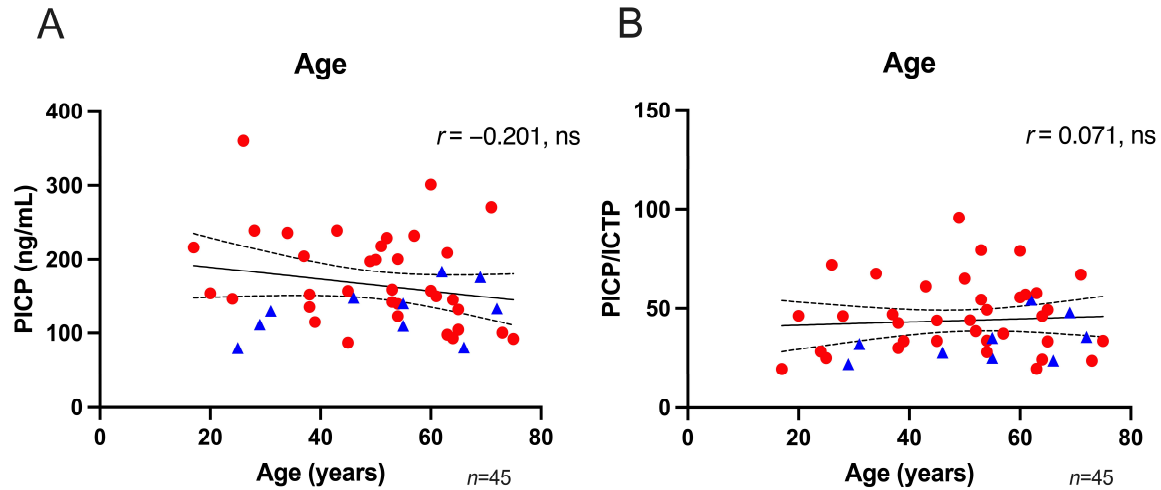
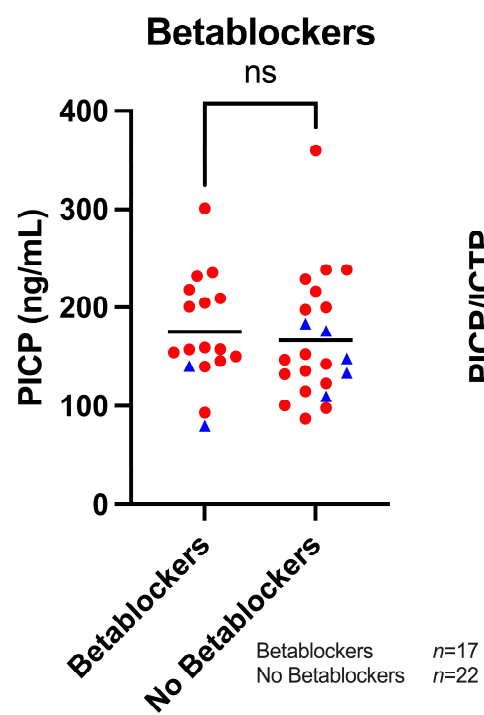


Supplementary Materials

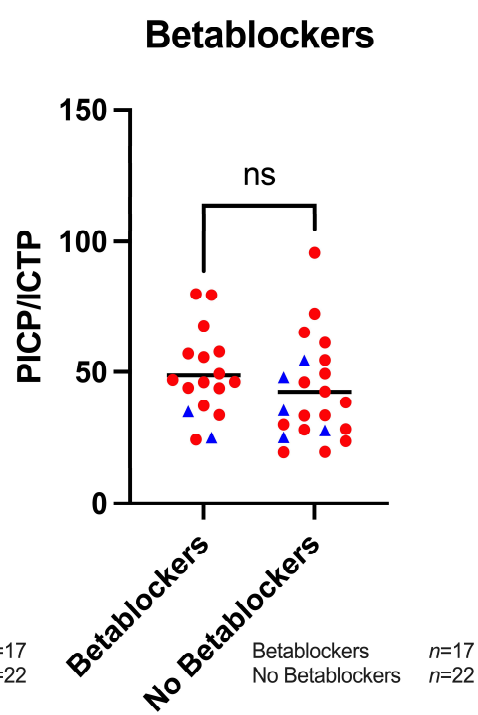


Supplementary Figure S1. No effect of age on biomarker levels. (A) A weak negative correlation of age with PICP levels was seen ($n=45$). (B) No correlation of total collagen turnover and age was found ($n=45$). Blue triangles represent preclinical variant carriers, while red dots are affected ACM patients. PICP; procollagen type I carboxy-terminal pro-peptide, ICTP; C-terminal telopeptide collagen type I, r ; Pearson correlation coefficient, ns; not significant. Pearson's correlation coefficient was performed.

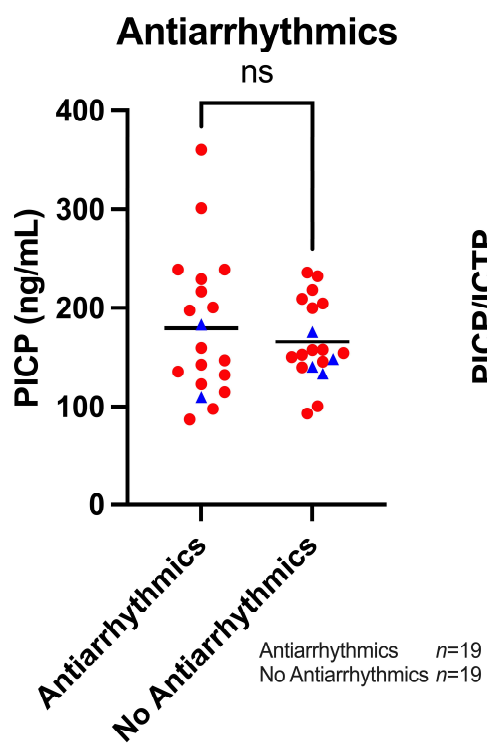
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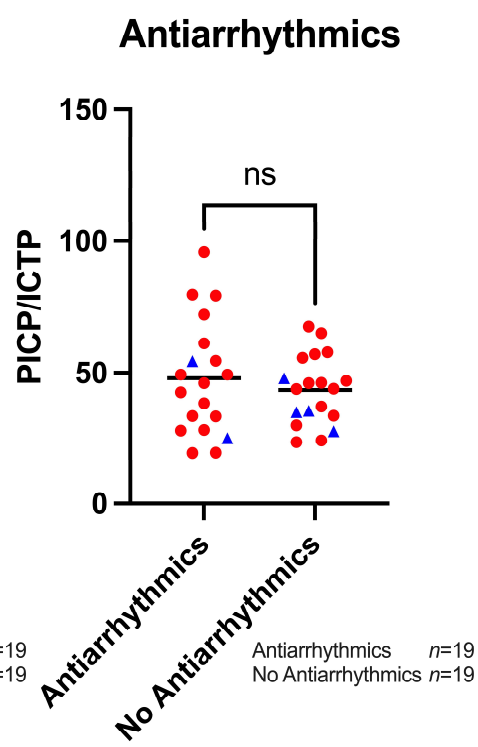
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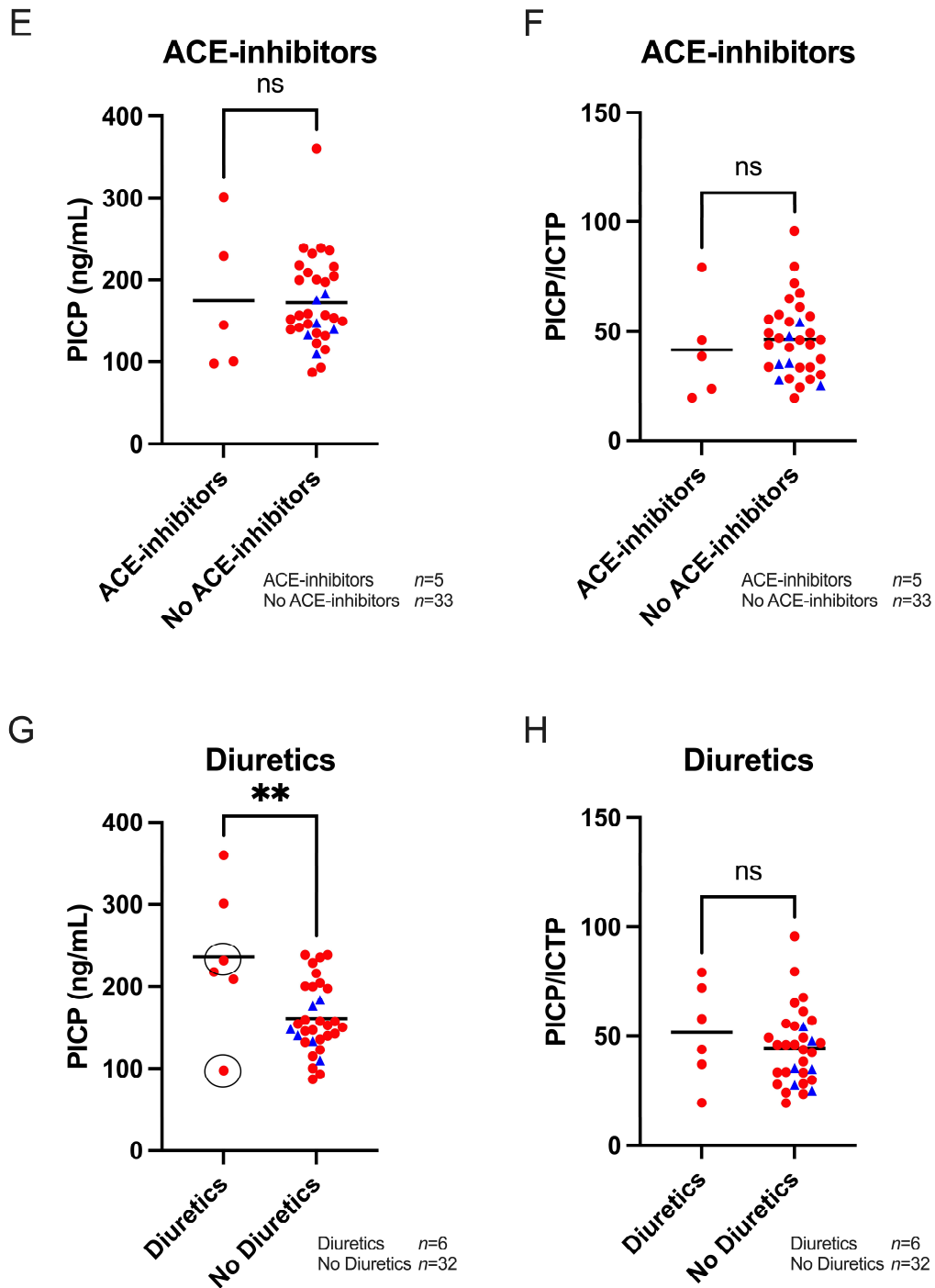


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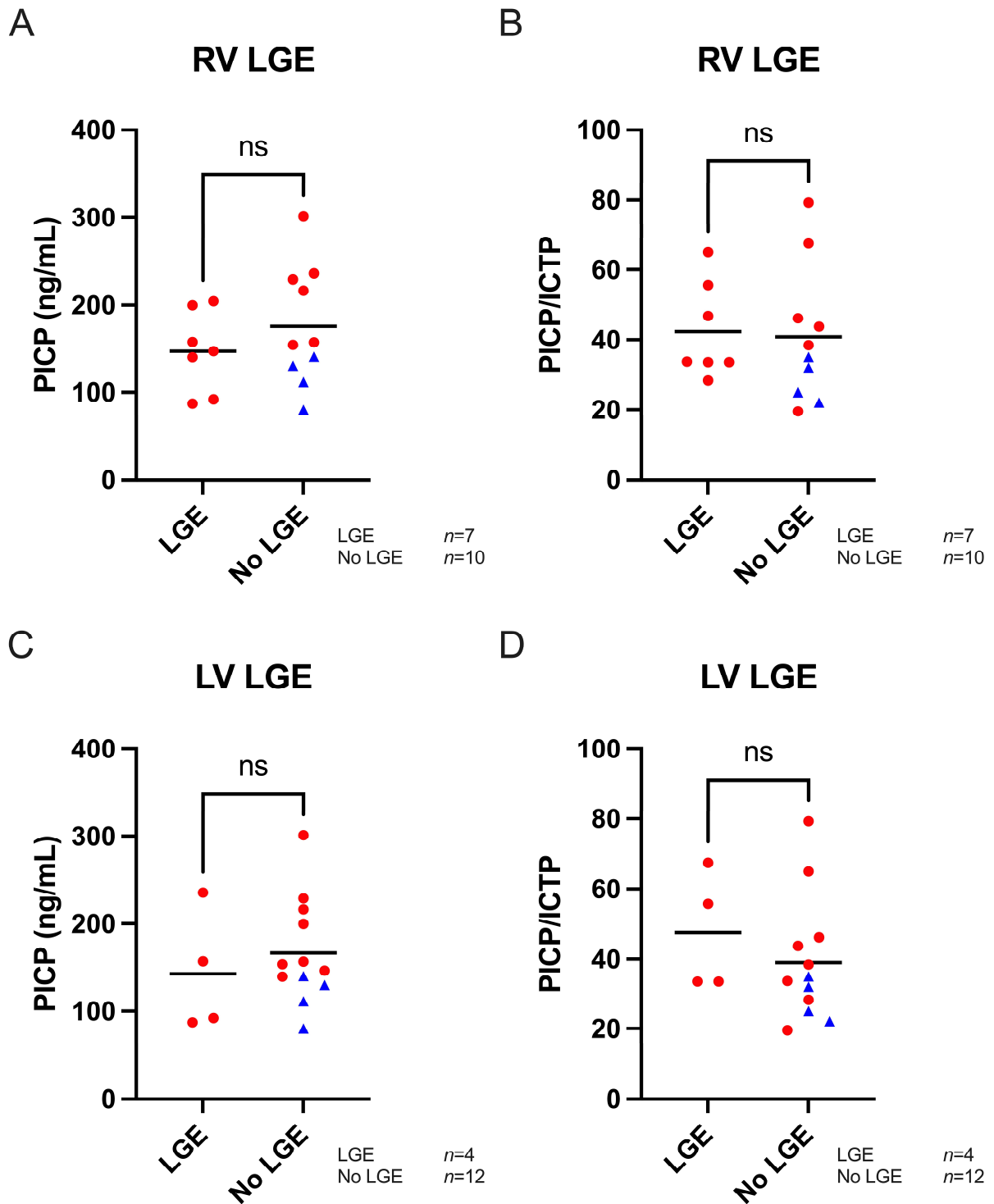


D





Supplementary Figure S2. Medication use did not influence fibrosis biomarker level. (A,B) The use of betablockers ($n=17$) did not influence PICP and PICP/ICTP ratios compared to patients without betablockers ($n=22$). (C,D) Fibrosis biomarker levels were not changed when using antiarrhythmics ($n=19$ both groups). (E,F) Fibrosis biomarkers levels were similar between patients using ACE-inhibitors ($n=5$) and patients without using ACE-inhibitors ($n=33$). (G) Significant higher levels of PICP levels were found in patients using diuretics ($n=6$). Marked patients correspond to patients using torasemid as diuretics. (H) Similar levels of total collagen turnover were found in patients with ($n=6$) and without using diuretics ($n=32$). Blue triangles represent preclinical variant carriers, while red dots are affected ACM patients. PICP; procollagen type I carboxy-terminal pro-peptide, ICTP; C-terminal telopeptide collagen type I, ACE; angiotensin-converting enzyme, ns; not significant. Unpaired Student's t test is performed. $**p<0.01$.



Supplementary Figure S3. No correlation with LGE and fibrosis biomarkers. (A,B) No difference in PICP levels or PICP/ICTP ratio in ACM patients with RV LGE ($n=7$) compared to patients without RV LGE ($n=10$). (C,D) No significant distinction was found between patients with LV LGE ($n=4$) and patients without LV LGE ($n=12$) and fibrosis biomarkers. Blue triangles represent preclinical variant carriers, while red dots are affected ACM patients. PICP; procollagen type I carboxy-terminal pro-peptide, ICTP; C-terminal telopeptide collagen type I, LGE; late gadolinium enhancement, RV; right ventricle, LV; left ventricle, ns; not significant. Unpaired Student's t test was performed.