

INTEGRATED LEFT VENTRICULAR MECHANICS IN "HEALTHY" HEART TRANSPLANT PATIENTS

R. Gravino¹; R. Vastarella¹; L. Baldini¹; G. Limongelli¹; A. Petraio²; F. Valente¹
D. Masarone¹; E. Ammendola¹; C. Amarelli²; C. Maiello¹; M.G. Russo¹; G. Pacileo¹

1. Heart Failure Unit, AORN dei Colli - Monaldi Hospital, Naples
2. Heart TRansplant Unit, AORN dei Colli - Monaldi Hospital, Naples

BACKGROUND

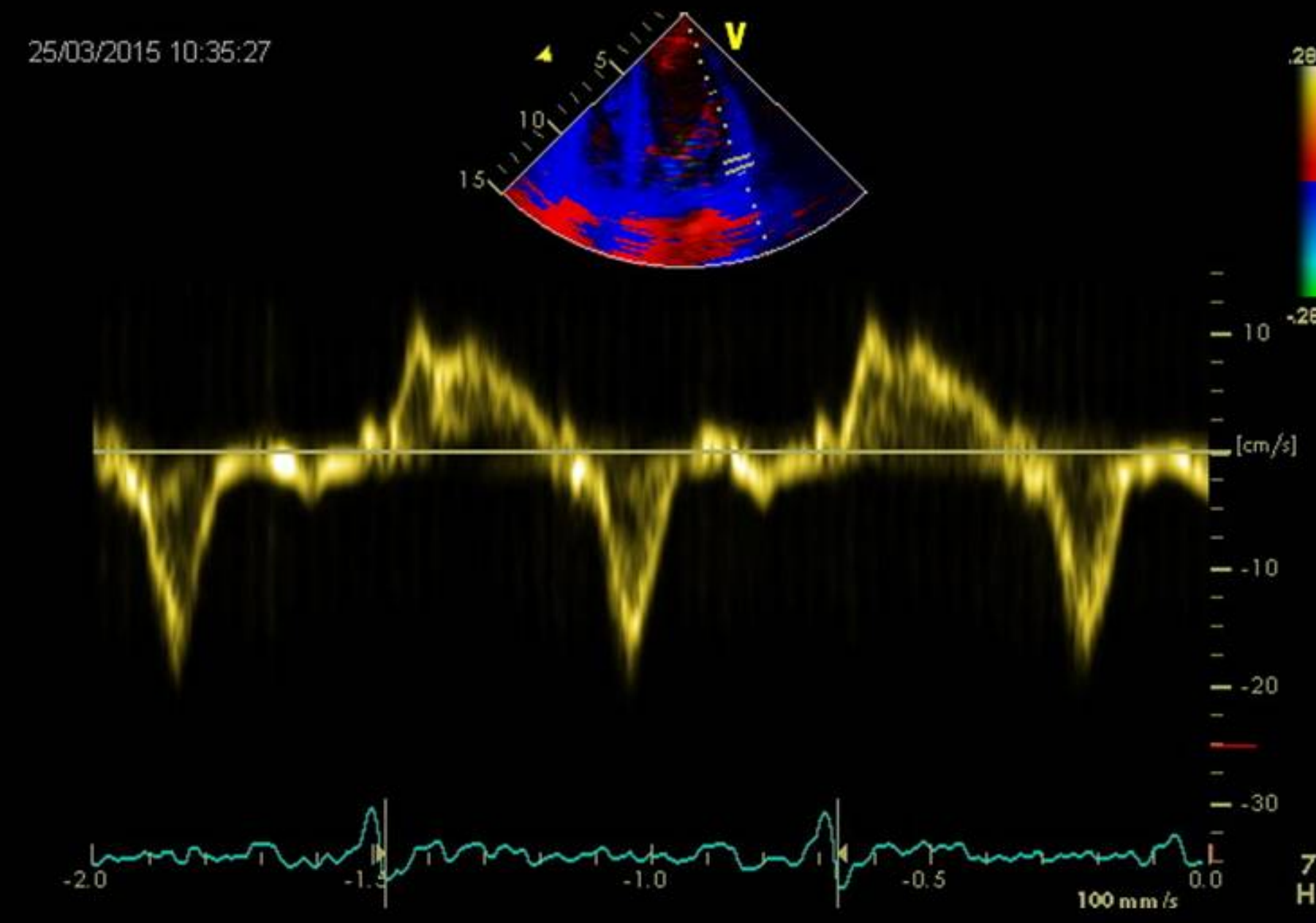
Although recently studies using Speckle Tracking Imaging on pediatric heart transplant (HTX) recipients have been published, an integrated assessment of all myocardial properties of deformation is lacking.

AIM

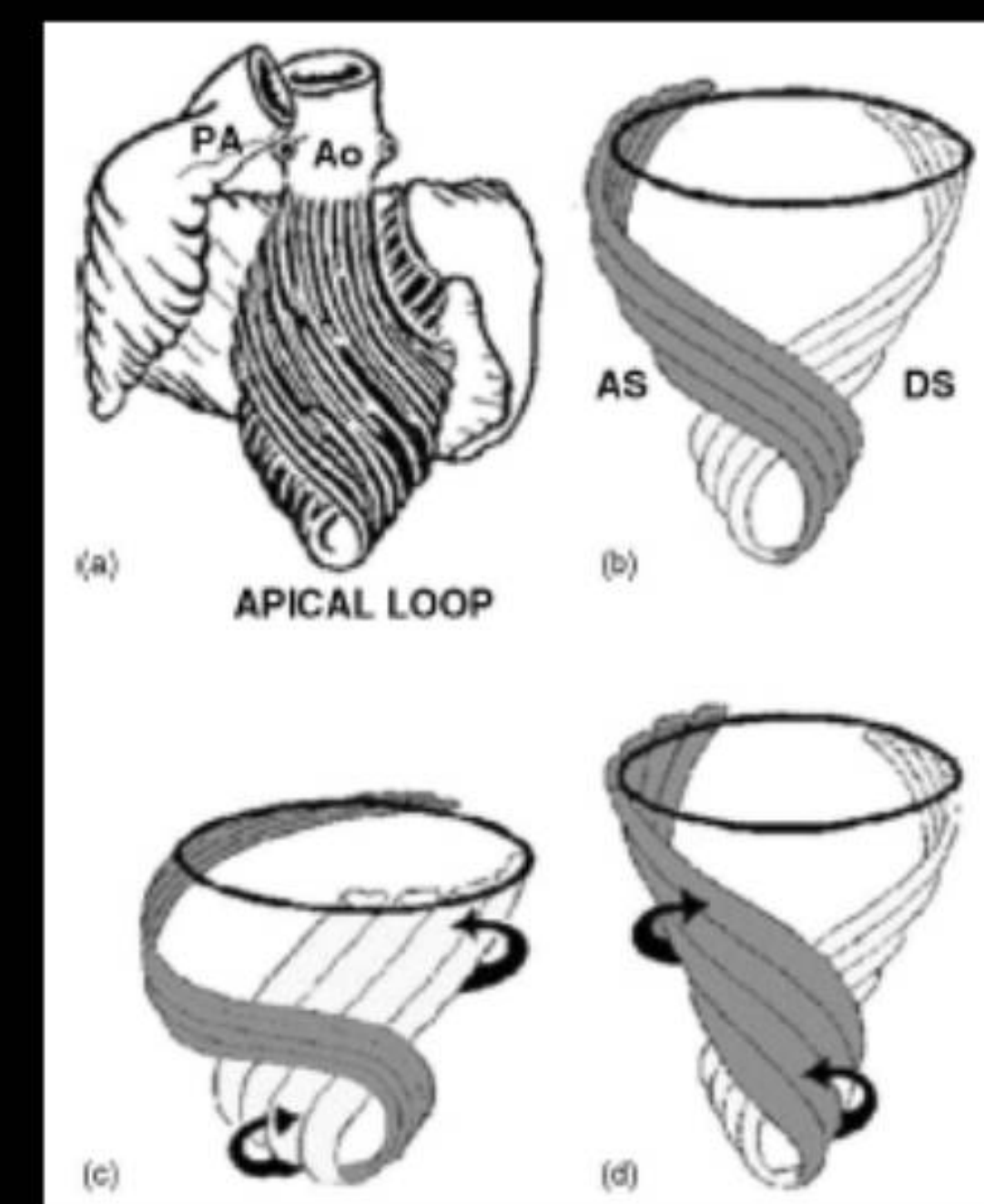
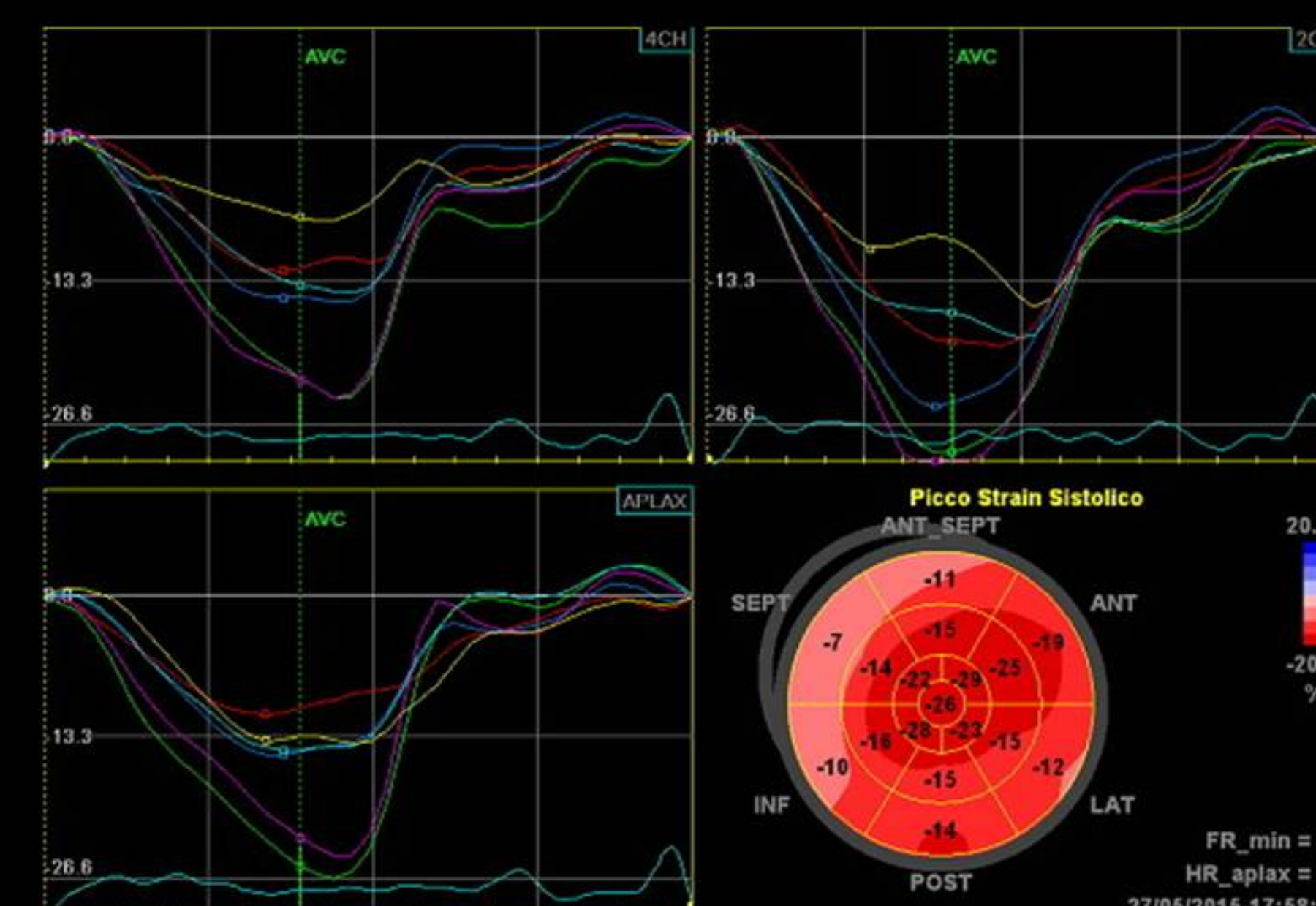
To perform, by using Speckle Tracking Imaging, an integrated study of LV mechanics (longitudinal, radial, circumferential regional deformation, twist, untwist onset and diastolic function) in HTX recipients with preserved ejection fraction and good clinical conditions (NYHA I).

Study population

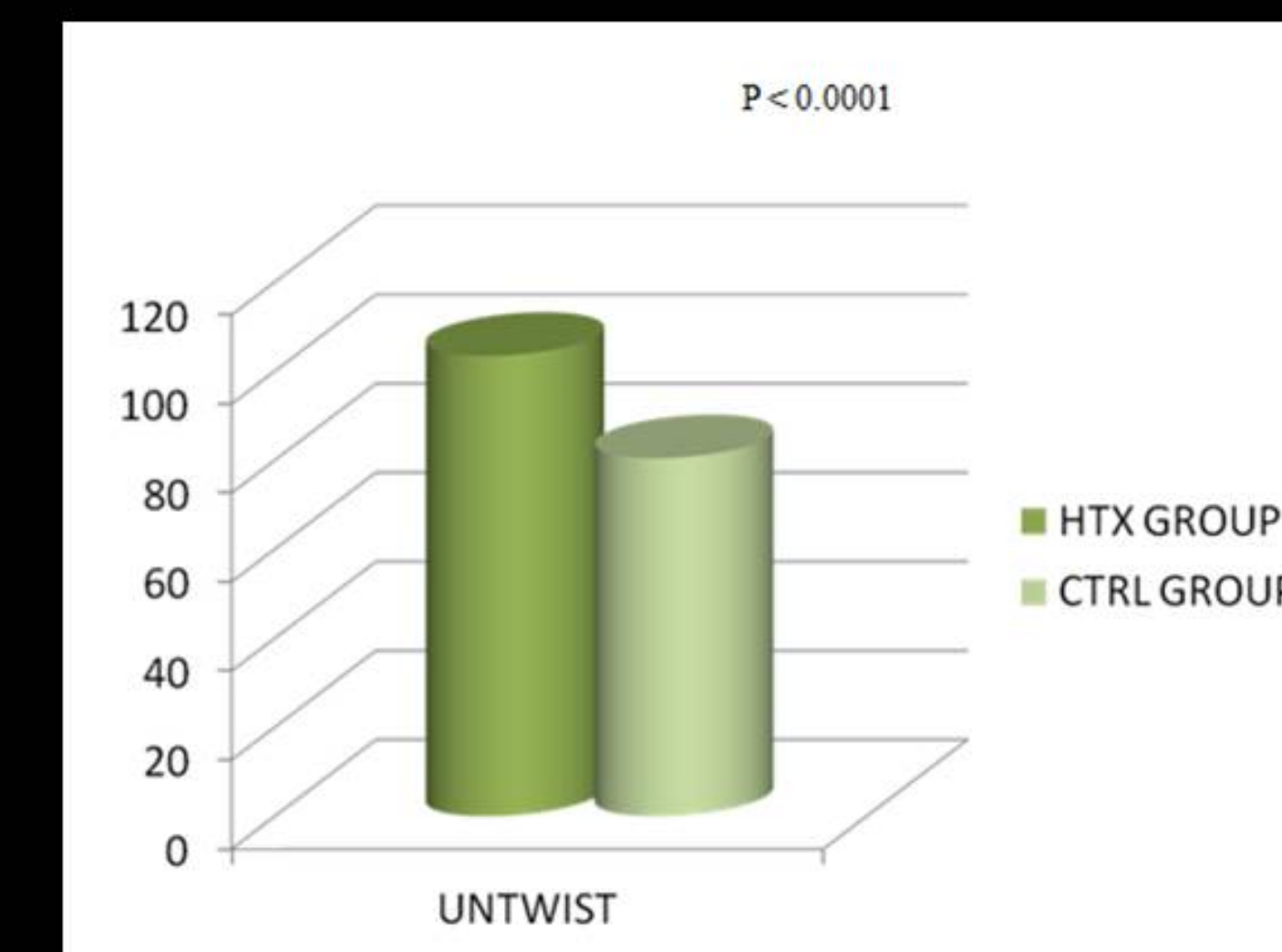
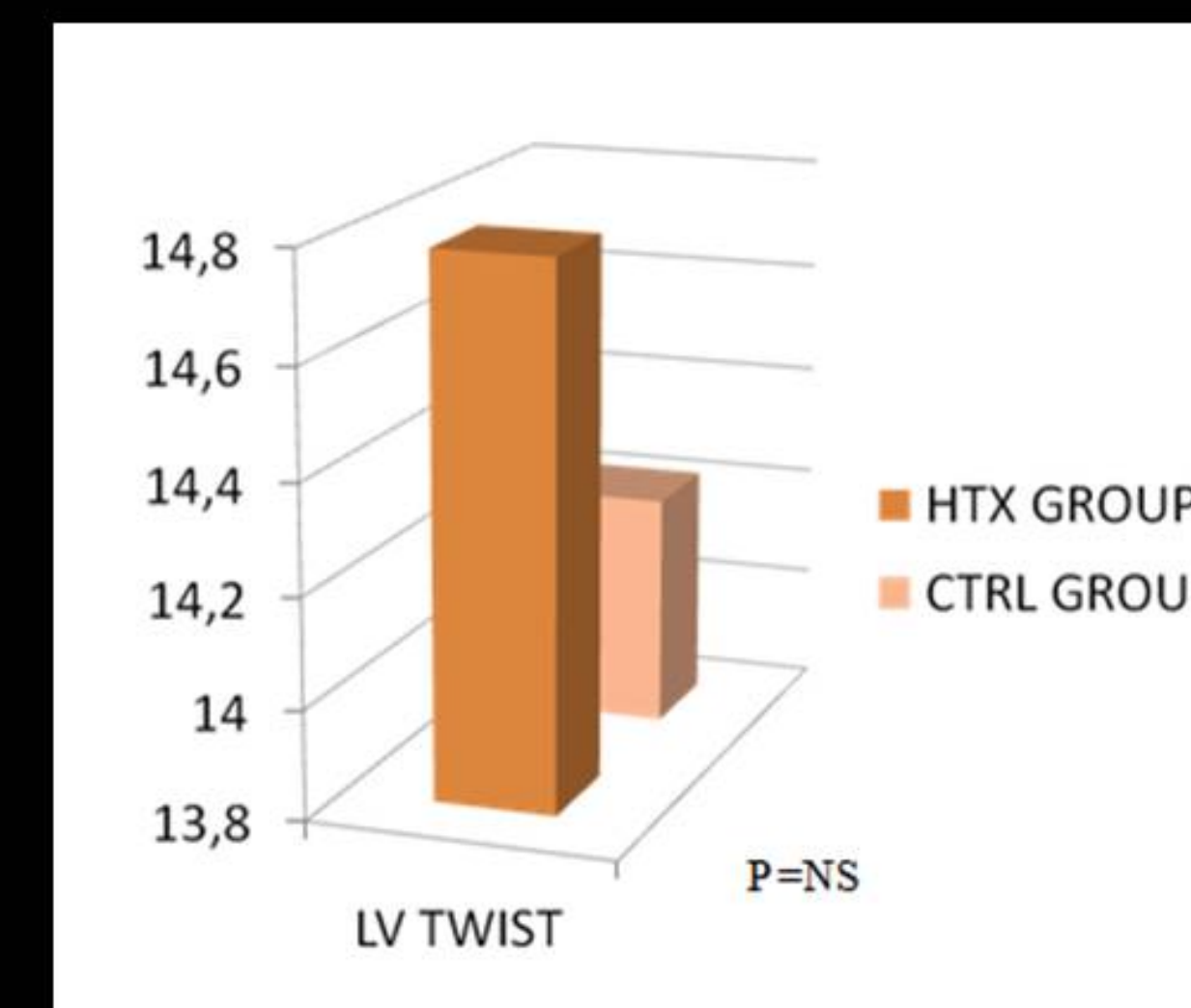
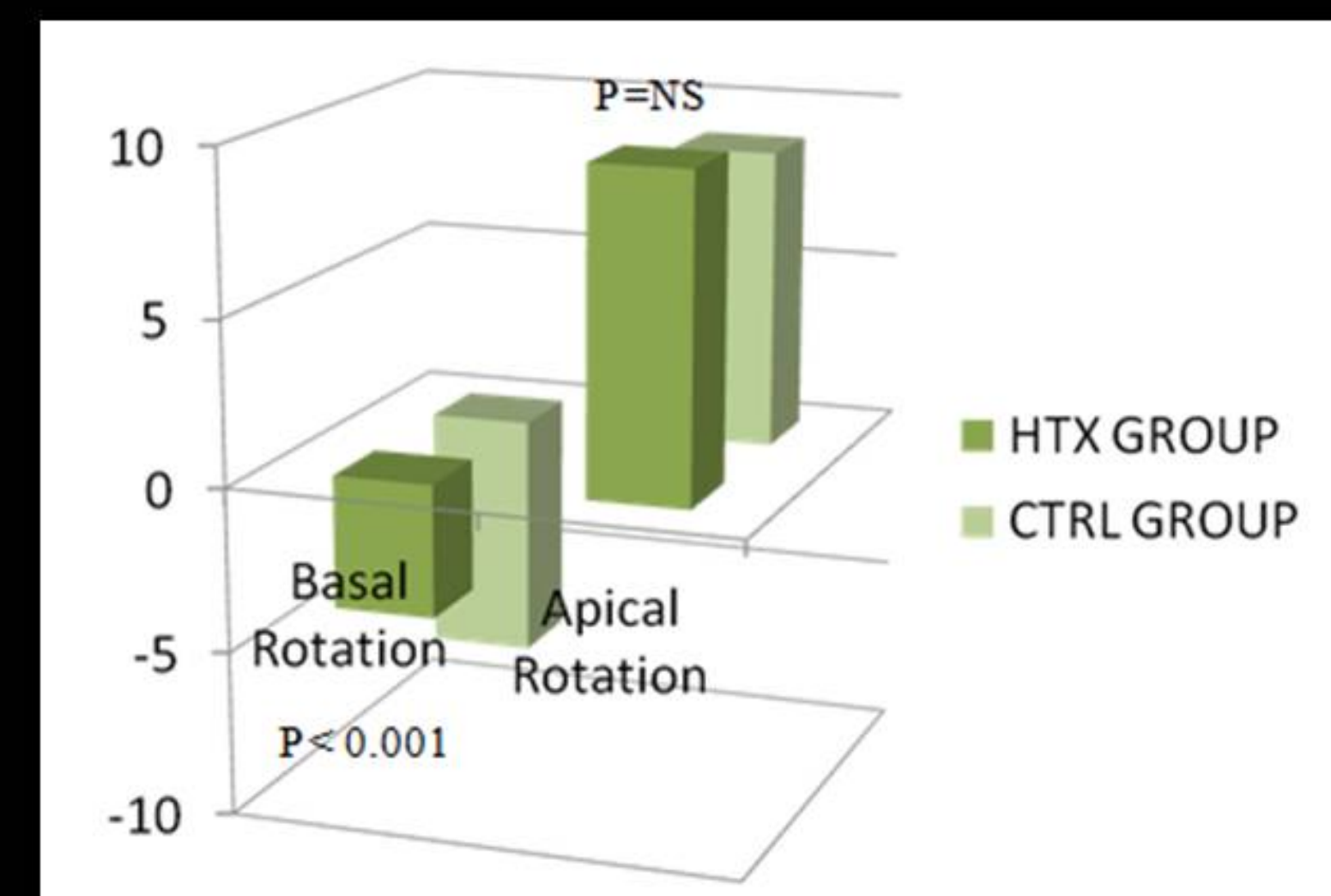
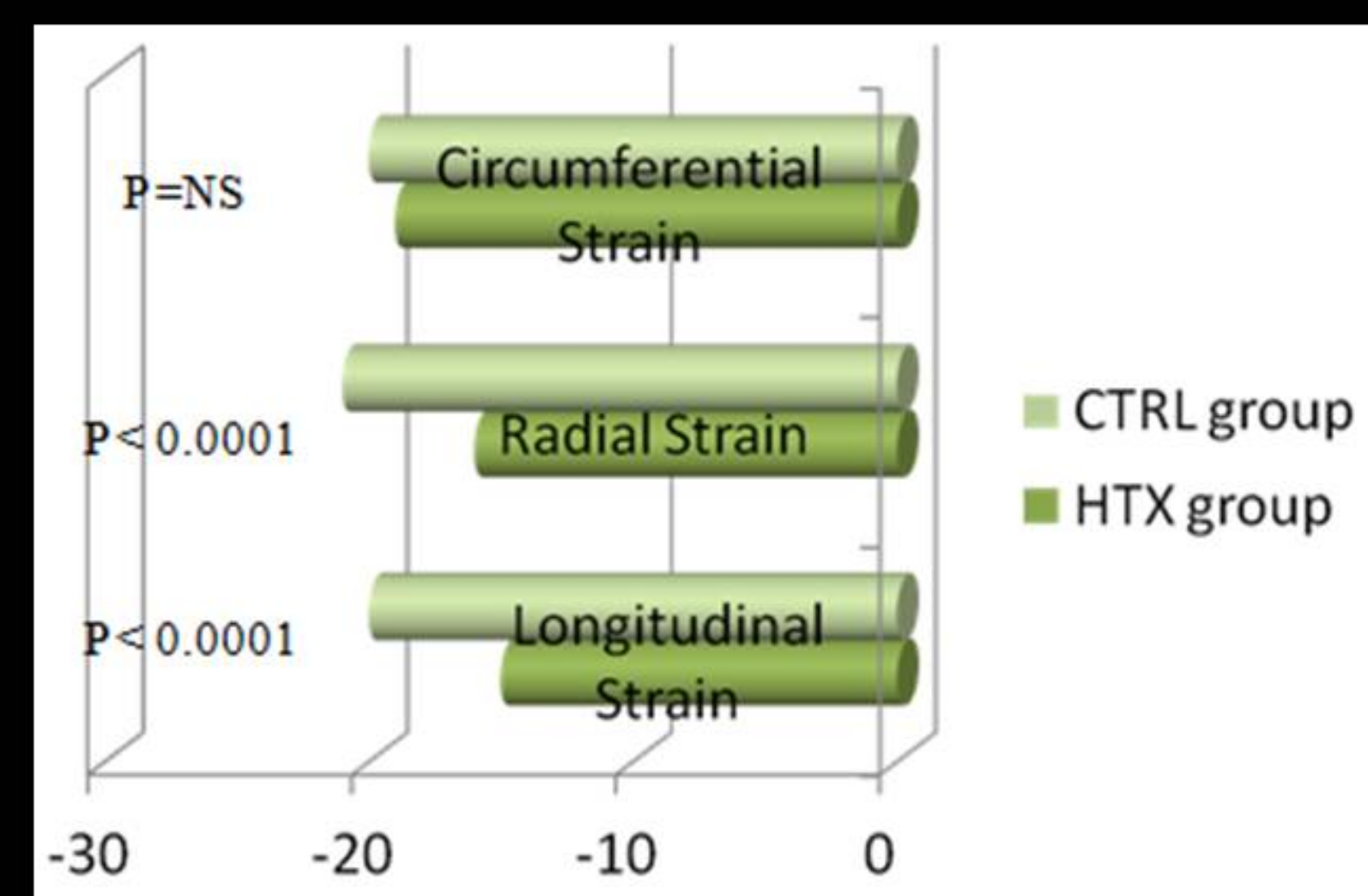
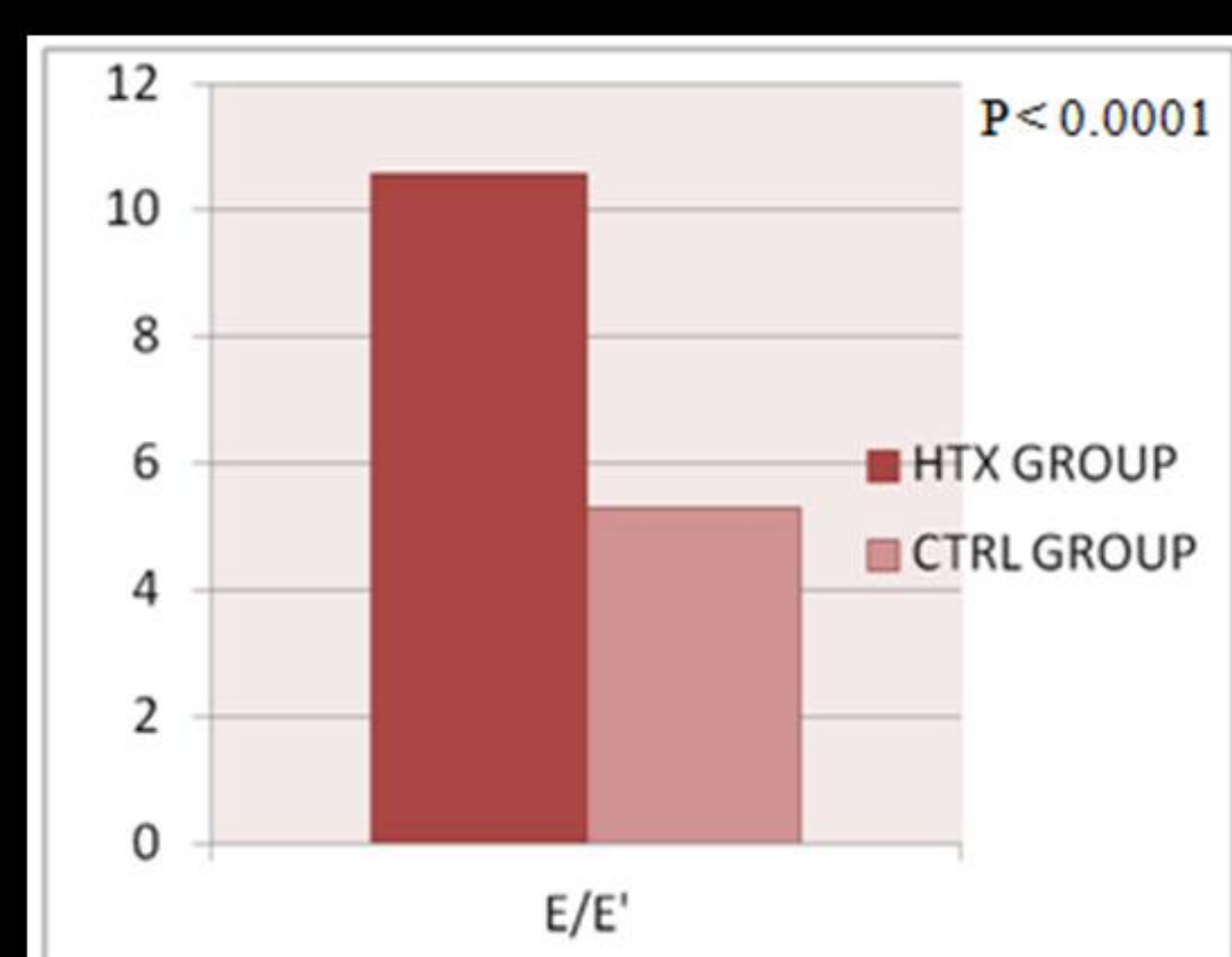
20 relatively stable pediatric cardiac transplant recipient patients (11 men; 14.5 ± 4.5 years; 3.8 ± 3 years after transplantation) and 40 healthy age-comparable and sex-comparable controls



Methods



RESULTS



CONCLUSIONS

Of interest "healthy" HTX patients, even in presence of widespread impairment of regional myocardial deformation, normal apical rotation, which account for normal amplitude of twist and in turn global ejection fraction. In addition delayed untwisting (after aortic valve closure) due to prolonged twist could be responsible of an early impaired LV diastolic filling.