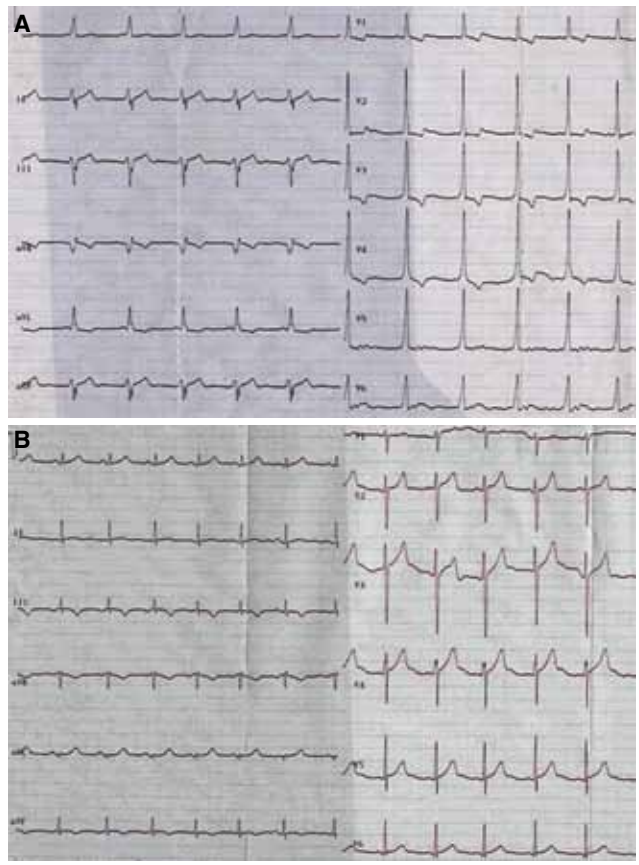
Two-dimensional strain imaging to predict the localization of an accessory pathway

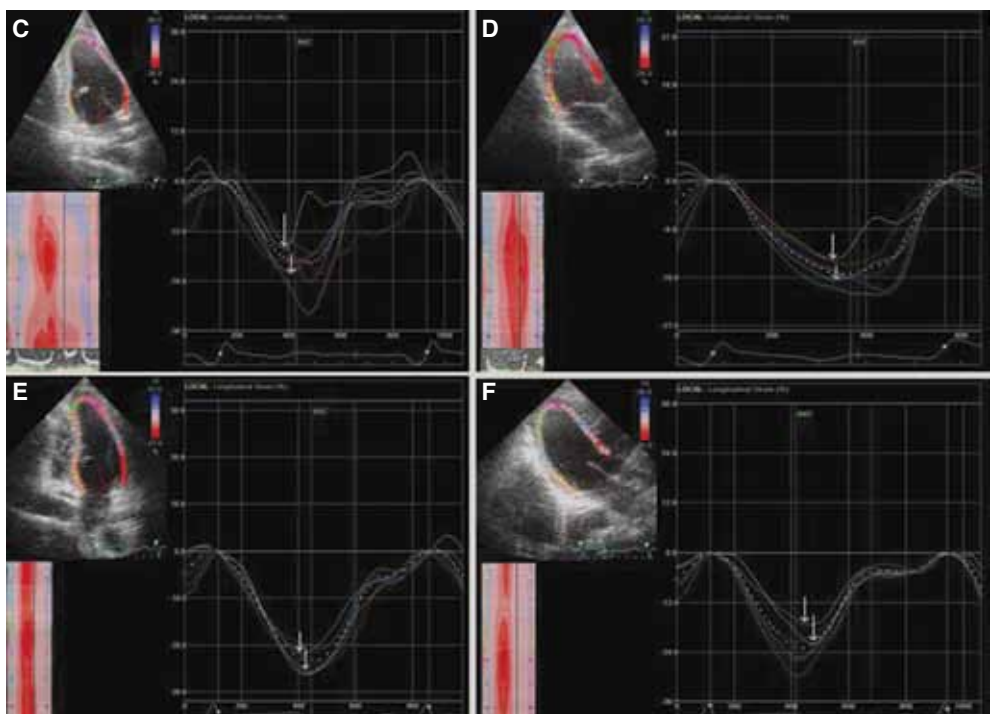
Aksesuvar yolun yerini belirlemek için ikiboyutlu gerilim görüntüleme

İbrahim Halil Tanboğa
Turgay Işık
Ahmet Kaya
Mustafa Kurt

Department of Cardiology,
Erzurum Education and Research Hospital,
Erzurum

A 26-year-old male with frequent palpitation episodes was referred to our clinic for electrophysiological study (EPS). His surface electrocardiogram showed short PR, delta wave, and wide QRS, consistent with a left accessory pathway (Fig. A). Before EPS, two-chamber and apical long-axis two-dimensional (2D) strain imaging demonstrated that time to peak longitudinal strain was shortest in the mid-basal inferior wall and mid-basal posterior wall, respectively. Electrophysiological study revealed that the accessory pathway was localized in the left posterolateral region and it was then ablated successfully (Fig. B). After the procedure, 2D strain imaging showed complete resolution of the early inferoposterior ventricular activation (Fig. C-F). Two-dimensional strain imaging may be useful to predict the localization of accessory pathways.





Figures. Electrocardiograms obtained **(A)** before and **(B)** after ablation. Two-dimensional two-chamber and apical long-axis strain images **(C, D)** before and **(E, F)** after ablation, respectively.