**UTILITY OF SIGNAL-AVERAGED HOLTER ELECTROCARDIOGRAM AFTER PILSICAINIDE PROVOCATION FOR RISK STRATIFICATION IN BRUGADA SYNDROME**

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*Objects*: To assess the utility of signal-averaged Holter ECG (S-Holter) after pilsicainide provocation (p-test) for the non-invasive risk stratification in Brugada syndrome (Br-S).

*Backgrounds*: Non-invasive risk stratification for ventricular fibrillation (VF) in Br-S is not fully evaluated.

*Methods*: We enrolled a total of 35 patients with Br-S (grouped according to histories of VF [VF]; n=10, and without VF [non-VF: including histories of syncope and asymptomatic]; n=20) and 5 controls, whom S-Holters with and without p-test were performed. We evaluated late potentials (the total filtered QRS duration [fQRS], root mean square voltage of the 40msec terminal portion of the QRS [RMS40], duration of the low amplitude electric potential component of the terminal portion [LAS40]) for 5 hours after p-test and for the same 5 hours without p-test recorded on another day in the same patients. We compared these data between the 2 groups and evaluated the utility of the S-Holter after p-test for risk stratification of VF episodes, retrospectively.

*Results*: The fQRS at 1 hour and LAS40 at 3 hours after p-test were significantly larger in VF group than non-VF group (fQRS; 113.9}8.9 vs 104.9}8 ms, LAS40; 45.4}5.9 vs 35.5}7.4 ms, p=0.01 and 0.01, respectively). The cut off values of these parameters were determined group as 112ms (sensitivity 80%, specificity 80%, p=0.01), and 41ms (sensitivity 90%, specificity 75%, p=0.01), respectively.

*Conclusions*: The fQRS at 1 hour and the LAS40 at 3 hours after p-test using S-Holter may be useful for risk stratification of VF episodes in Br-S.