Elevación del segmento ST en precordiales derechas, no Brugada - 2015

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Elevación del segmento ST confinado apenas en derivaciones precordiales derechas (V1 a V3) sin las características del los patrones Brugada tipos 1 (*coved type*) o tipo 2 (*saddel-back*) ha sido recientemente estudiado en un enorme universo por autores Japoneses.
Los investigadores acompañaron por 1 año 4 grupos

1. Grupo 1: **noncoved (type 1 BrP) and nonsaddleback ST−T morphology (type 2 BrP) with J point elevation ≥0.2 mV in the right precordial leads (**STERP)
2. Grupo 2 BrP type 1
3. Grupo 2 BrP ype 2
4. Grupo 4 sin elevacion del ST

Fue un estudio de coorte con 7178 participantes (2886 men, 4292 women) con edad entre 40 y 64 años *prospective community−based study that was launched to examine risk factors of cardiovascular disease from 1963 The authors recruited 10 337 participants (4223 men, 6114 women) who underwent a health checkup from 1982 to 1986.*

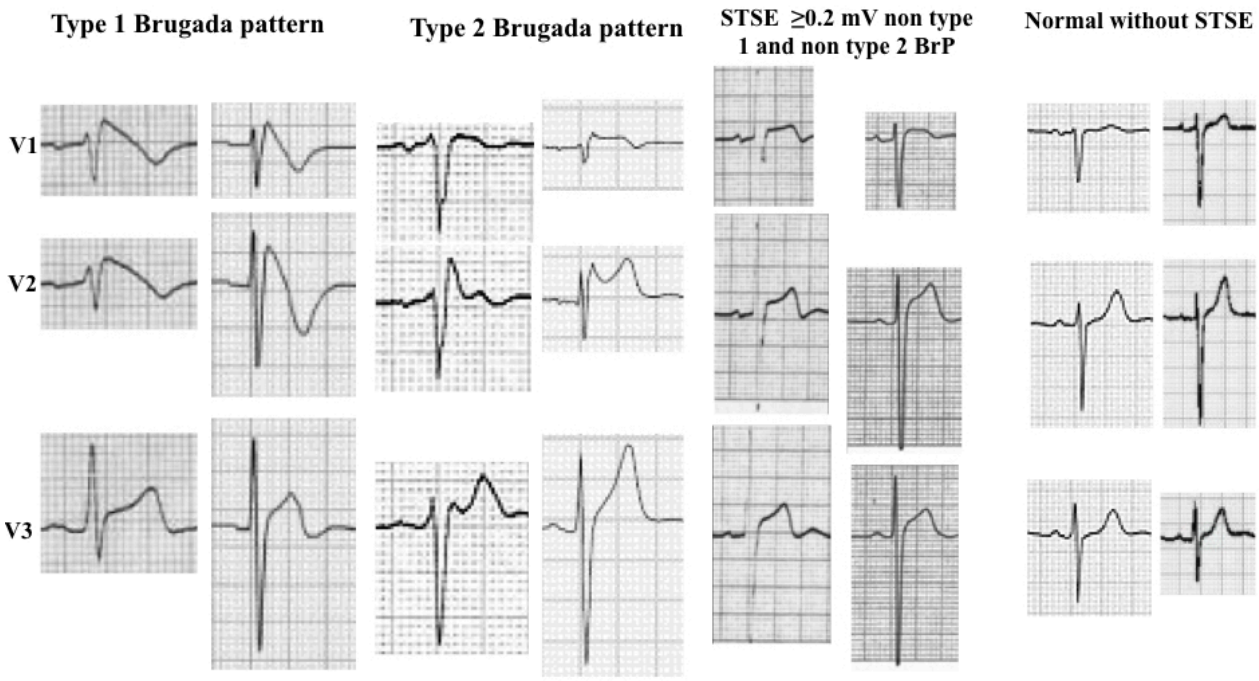
Los autores llegaron a la conclusión de que la coexistencia elevación del ST en precordiales derechas no tipo Brugada 1 o 2 es un predictor de mal pronóstico.
Poco se sabe acerca de la morfología ST-T a excepción de BrS en las derivaciones precordiales derechas, se asocia con arritmias malignas.

En consecuencia, los autores investigaron los ECG que tenían elevación del ST sin los patrones Brugada y analizaron las características clínicas y el pronóstico a largo plazo de los participantes .
Los autores concluyeron que estos participantes tenían un riesgo marcadamente elevado de SCD en comparación con aquellos con aquellos sin elevación. Este informe es el primero en demostrar el riesgo significativamente mayor de SCD en los participantes con mera elevacion del ST en precordiales derechas. Además, los participantes con esta características fueron predominantemente hombres (94,7%) y fueron significativamente más jóvenes que los participantes en el grupo sin elevacion del ST.

Les adjunto el disenho del manuscrito Tsuneoka H, Takagi M, Murakoshi N, et al.; CIRCS

Another ST segment elevation pattern on right precordial leads with J point elevation ≥0.2 mV in the right precordial leads non type 1 and non type 2 Brugada Pattern

Flowchart of the entry process for the 7178 participants



The plasma concentration of testosterone is higher in men with BrS than in other age−matched men (**Kamakura 2013**) and was reported to increase net Ito of the epicardium, to aggravate the transmural voltage gradient between the epicardium and endocardium, and to lead to the J point seen in ERS and BrS (**Sekiguchi 2013**). In this study, there was no significant difference in body mass index that would indicate an influence by testosterone between the STERP and non−ST groups, indicating that testosterone may not play a leading role in the prognosis of participants with STERP even if it could influence the J point amplitude. Junttila et al (**Junttila 2013**) reported that testosterone levels were closely associated with not only lateral J point elevation but also with a rapidly ascending ST−segment after J point elevation, which Tikkanen et al (**Tikkanen 2011**) reported as being benign in 3 types of ST−segments (ascending, horizontal, or descending.) The mechanism of the J point in the right precordial leads associated with testosterone would be the same as that in the inferior leads.

In the large number of participants without BrS, the higher amplitude of the J point in the right precordial leads was significantly associated with SCD incidence. A hospital−based study with a small number of participants (n=85) reported that the incidence of SCD of probands with non−type 1 BrP including ECGs with a J point amplitude ≥0.1 to <0.2 mV was similarly as high as those with type 1 BrP (**Kamakura 2013**). In terms of J point amplitude, our result is identical to that of a previous large−scale community−based study that investigated the inferior leads and showed that J point elevation of at least 0.1 mV in the inferior leads was associated with a high risk of cardiac death, and J point elevation of >0.2 mV in the inferior leads had a higher risk of arrhythmia events and cardiac death (**Nam 2010**). Similarly, the authors focused on the right precordial leads in this middle−aged Japanese general population without BrS and revealed that the amplitude of the J point elevation in the right precordial leads had some prognostic value, and there was a higher risk of SCD among participants with a markedly elevated J point (>0.2 mV) than among those with more moderate elevation (≥0.1 mV).

1. Tsuneoka H, Takagi M, Murakoshi N, et al.; CIRCS Investigators.Long-Term Prognosis of Brugada-Type ECG and ECG With Atypical ST-Segment Elevation in the Right Precordial Leads Over 20 Years: Results From the Circulatory Risk in Communities Study (CIRCS).J Am Heart Assoc. 2016;5(8). pii: e002899. doi: 10.1161/JAHA.115.002899