

Automatic capture management may cause unnecessary battery depletion in selective His bundle pacing

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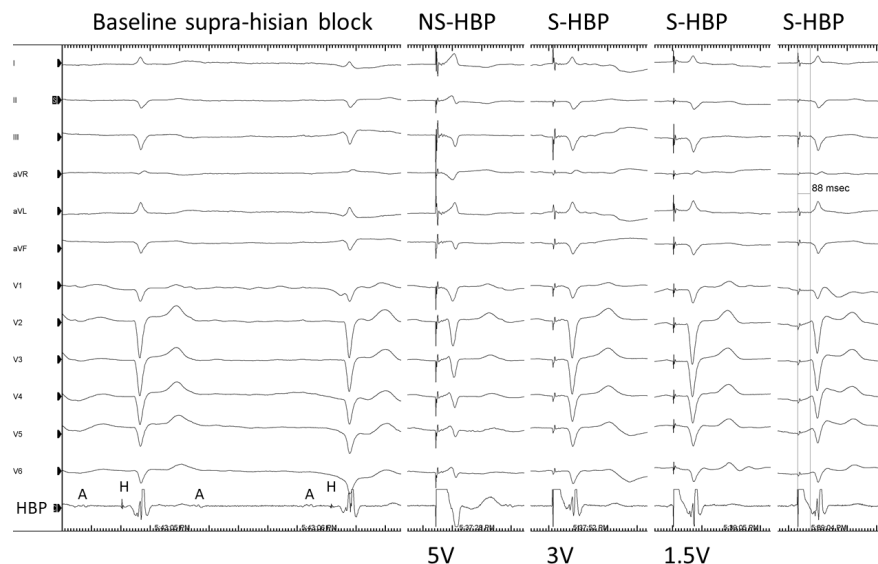
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Abstract

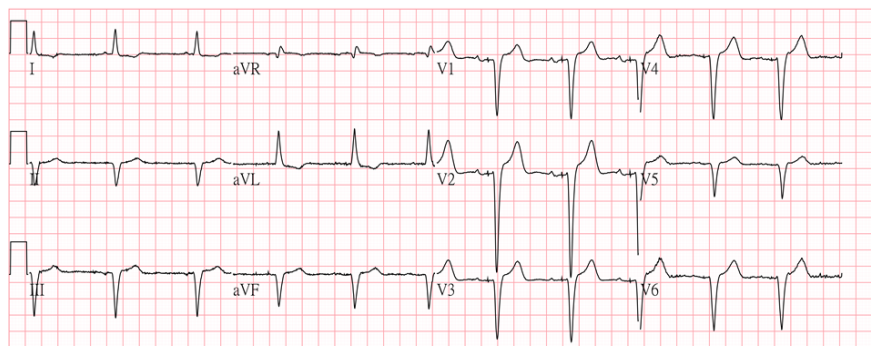
A modern implantable pulse generator is equipped with an automatic capture management (ACM) program that provides reliable pacing threshold management and potential device longevity benefit. However, an accurate His bundle pacing (HBP) lead threshold value is not always the same as the ACM algorithm measurement. We reported a patient who presented with a high ventricular pacing output that caused shortening of device longevity because of the wrong ACM algorithm HBP threshold measurement. Because of the time interval between pacing stimulation and the ventricular electrogram during HBP, the ACM algorithm considers “pacing capture loss” despite His bundle capture. The ACM algorithm overestimates an accurate HBP threshold and unnecessarily changes pacing parameters to high ventricular pacing output. A routine change in the ACM algorithm from “adaptive” to “off or monitor” is needed to conserve device longevity.

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(A)



(B)



