PRODUCT SPOTLIGHT

Using a Bard® Scorpion™ Ablation Catheter for the Treatment of AVNRT

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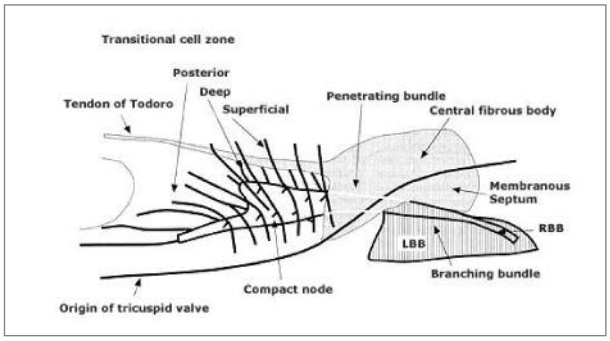
I. Introduction:

Atrioventricular nodal re-entrant tachycardia (AVNRT) is the most common cause of paroxysmal supraventricular tachycardia, and accounts for approximately two-thirds of cases. Over the years, radiofrequency catheter ablation (RFCA) has been so successful in treating this arrhythmia that it (RFCA) has become the treatment of choice.

Exact anatomical localization of pathways during an AVNRT procedure is uncertain and challenging because the arrhythmia is a micro re-entrant tachycardia. The target is the slow pathway, which lies posterior to Koch's triangle (bound by the tricuspid ring, the tendon of Todoro, and the coronary sinus; the apex of the triangle is near the His bundle at the membranous septum). Microscopic anatomy below:

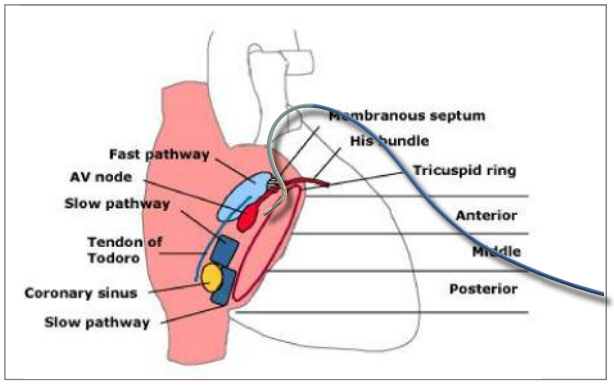


When treating patients with a narrow Triangle of Koch and significant respiratory-related movement, the catheter's stability may inherently be compromised. This may lead to significant increase in the risk of damage to the fast pathway creating complete heart block. Pace mapping the triangle of Koch is helpful in targeting the slow pathway and avoiding damage to the fast pathway. Pace mapping manipulation in a patient with a narrow triangle of Koch (narrow is defined here as the distance between the CS Os and His being less than 1cm) and respiratory-related motion is difficult. It becomes even more challenging in a patient with sleep apnea, despite the use of an ablation sheath; further increasing the potential for complications during the procedure.

II. Case:

A young female was recently referred for a supraventricular tachycardia ablation, and AVNRT was induced during the EP study. The triangle of Koch was narrow, and due to significant respiratory variation, the competitive 5mm deflectable ablation catheter we used initially was very unstable, despite the use of an SRO sheath. Lack of adequate tissue contact due to the respiratory movement made pace mapping of the triangle of Koch very difficult.

We proceeded with modification of the slow pathway by replacing our current competitive catheter with a 5mm tip Bard Scorpion ablation catheter, which gave us greater stability. By utilizing both the primary and secondary curve of the Scorpion, excellent tissue contact was maintained and modification of the slow pathway in the posterior aspect of Koch's triangle was performed without damage to the fast pathway. I did not feel this could have been achieved as effectively and safely with a traditional, single-curve catheter; Scorpion's unique dual-curve configuration helps to point the tip of the ablation catheter away from the fast pathway.



III. Conclusion:

After utilizing Bard's Scorpion catheter in the aforementioned case, it has become my catheter of choice for patients with a narrow triangle of Koch and respiratory variation. By utilizing both the primary and secondary curve of this catheter, stable contact is maintained, enabling excellent delivery of RF energy and reducing the risk of damage to the fast pathway.

Disclosure

The opinions and clinical experiences presented herein are for informational purposes only. The results from this case study may not be predictive for all patients. Individual results may vary depending on a variety of patient specific attributes.

The physician has been compensated by Bard Electrophysiology for the time and effort in preparing the above case study for its further use and distribution.