Comparison between His-bundle Pacing Guided by Ensite NavX System and Conventional Fluoroscopy.

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Introduction: Conventional fluoroscopy guidance, permanent His-bundle pacing (HBP) usually involves high fluoroscopy exposure. This study aims to analyze the learning curve for the Ensite NavX system, and compare its pacing parameters and fluoroscopy doses (FD) with that of conventional fluoroscopy guiding HBP.

Methods: A total of 30 patients receiving HBP from June 2018 to January 2019 were prospectively enrolled into this study (15 patients guided by conventional fluoroscopy and 15 patients by NavX system). Procedure time, FD, and pacing parameters were recorded at implant and 3-month follow-up.

Result: Fourteen patients (93.3%) underwent successful HBP using Ensite NavX system. Procedure time basically stabilized after 4 implants. The total FD was 1.4 ± 0.5mGy in NavX group and 16.1 ± 2.2mGy in conventional group (P < 0.001). The His lead FD was 0.4 ± 0.3mGy in NavX group and 12.5 ± 2.2mGy in conventional group (P < 0.001). There was no significant difference in pacing parameters at implant and follow-up between the two groups.

Conclusion: Guided by Ensite NavX system, HBP is simple and efficient with a significant reduction in fluoroscopy exposure.