



Highlights from:

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Accuracy and Procedural Characteristics of Standard Needle Compared with Radiofrequency Needle Transseptal Puncture for Structural Heart Interventions

INTRODUCTION

- ▶ This retrospective, single-center study compared the performance and accuracy of a mechanical needle and the **NRG™** RF Transseptal Needle (Baylis Medical¹) in gaining left-sided access via transseptal puncture in 52 structural heart procedures, including left atrial appendage occlusions and mitral valve repairs.

RESULTS

- ▶ The punctures attempted using the unassisted mechanical needle were successful in 88% of cases while the **NRG™** RF Needle was successful in 100% of cases (Figure 1). Two cases in which the mechanical needle failed required crossover to the **NRG™** RF Needle to achieve successful transseptal puncture.
- ▶ The average extent to which the septum was tented was reduced by 51% with the **NRG™** RF Needle compared to the mechanical needle (Figure 2, $p < 0.05$).

DISCUSSION AND CONCLUSIONS

- ▶ The **NRG™** RF Needle resulted in a higher overall transseptal puncture success rate, decreased puncture time, and reduced tenting.

Successful Punctures

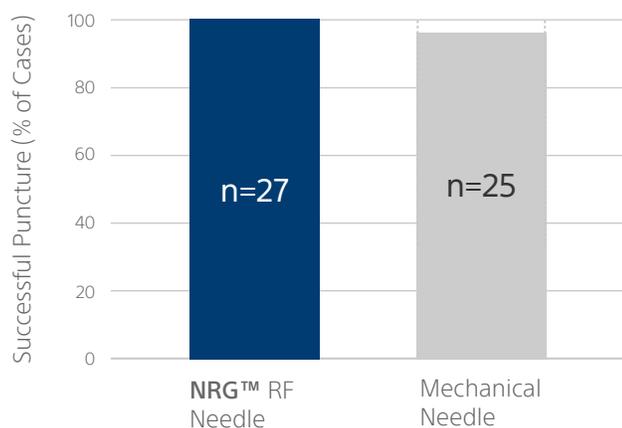


Figure 1. Successful transseptal punctures performed with the **NRG™** RF Needle vs. an unassisted mechanical needle.

Tenting Distance

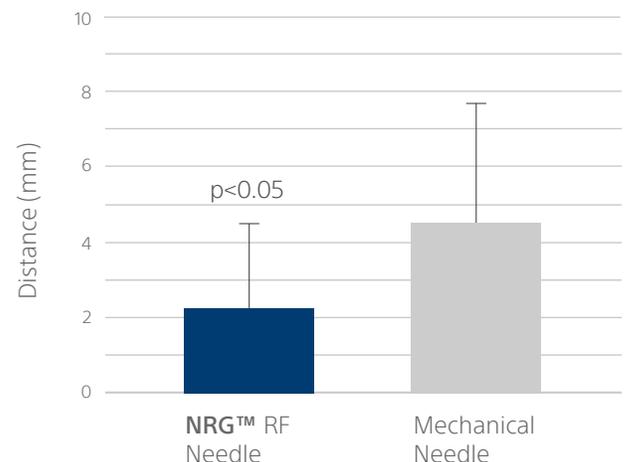


Figure 2. Pre-to-maximum tenting at the transseptal site using the **NRG™** RF Needle vs. a mechanical needle ($p < 0.05$).

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