Abstract: P1560

Comparison of two types of rotational mechanical dilatator sheath

Authors:
S Cay1, O Ozeke1, F Ozcan1, S Topaloglu1, D Aras1, 1Turkiye Yuksek Ihtisas Hospital - Ankara - Turkey,

Topic(s):
Device Complications and Lead Extraction

Citation:

Introduction: Lead extraction procedure can be performed using various extraction tools. Rotational mechanical dilator sheaths are usually needed in chronically implanted leads. Comparative data are essential between different rotating dilator sheaths. The aim of the current study was to compare procedural, clinical outcomes and adverse events in patients undergoing lead extraction utilizing two different mechanical rotating dilator sheaths.

Methods and Results: From December 2009 to August 2017, 163 lead extractions from 98 consecutive patients (median, 65 years; 71% male) utilizing a rotating mechanical sheath were analyzed for both efficacy (procedural and clinical success) and safety (adverse events). According to the type of the sheath used, the Evolution group (58 patients with 94 leads) and the TightRail group (40 patients with 69 leads) were determined. Extracted device was an implantable cardioverter-defibrillator (ICD) in two-thirds of patients. The majority of leads (87.7%) had passive-fixation mechanism. All ICD leads were dual-coil leads. The median lead implant duration was 4 years and no difference was found between the 2 groups. Infectious causes were the indication for extraction in 56.1% of patients. There was no statistically significant difference regarding the procedural success rate (96.6% vs 95.0%), clinical success rate (98.3% vs 97.5%) and total adverse event rate (5.2% vs 10.0%) between the Evolution and TightRail groups, respectively. Procedural success decreased with older leads and higher lead number.

Conclusions: Procedural and clinical success utilizing both the Evolution and TightRail rotational extraction sheaths were high with low complication rate in chronically implanted leads.

![Procedural success chart](chart.png)
Abstract: P1560
Comparison of two types of rotational mechanical dilatator sheath
Authors: S Cay1, O Ozeke1, F Ozcan1, S Topaloglu1, D Aras1, 1 Turkiye Yuksek Ihtisas Hospital - Ankara - Turkey,

Introduction: Lead extraction procedure can be performed using various extraction tools. Rotational mechanical dilator sheaths are usually needed in chronically implanted leads. Comparative data are essential between different rotating dilator sheaths. The aim of the current study was to compare procedural, clinical outcomes and adverse events in patients undergoing lead extraction utilizing two different mechanical rotating dilator sheaths.

Methods and Results: From December 2009 to August 2017, 163 lead extractions from 98 consecutive patients (median, 65 years; 71% male) utilizing a rotating mechanical sheath were analyzed for both efficacy (procedural and clinical success) and safety (adverse events). According to the type of the sheath used, the Evolution group (58 patients with 94 leads) and the TightRail group (40 patients with 69 leads) were determined. Extracted device was an implantable cardioverter-defibrillator (ICD) in two-thirds of patients. The majority of leads (87.7%) had passive-fixation mechanism. All ICD leads were dual-coil leads. The median lead implant duration was 4 years and no difference was found between the 2 groups. Infectious causes were the indication for extraction in 56.1% of patients. There was no statistically significant difference regarding the procedural success rate (96.6% vs 95.0%), clinical success rate (98.3% vs 97.5%) and total adverse event rate (5.2% vs 10.0%) between the Evolution and TightRail groups, respectively. Procedural success decreased with older leads and higher lead number.

Conclusions: Procedural and clinical success utilizing both the Evolution and TightRail rotational extraction sheaths were high with low complication rate in chronically implanted leads.