PROSTOROVÁ DISTRIBUCE FIBRÓZY MYOKARDU LEVÉ SÍNĚ A JEJÍ VLIV NA REKURENCI FIBRILACE SÍNÍ PO IZOLACI PLICNÍCH ŽIL: DÍLČÍ STUDIE AF WAVE-MAP PROJEKTU

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Roof Scar Correlation with Recurrence After A Single PVI Procedure

Introduction

- The presence of low voltage area on electroanatomical maps may predict the need for ablations beyond pulmonary vein isolation (PVI) in atrial fibrillation (AF).

Roof Scar Correlation with Recurrence After A Single PVI Procedure

Methods

- A sub-study of fifty-seven paroxysmal and persistent AF subjects
- High-density bipolar voltage maps were collected in sinus rhythm followed by PVI only ablation.
- Using a low voltage cutoff of 0.5 mV, each map was evaluated offline for scar in six left atrial regions
  - Anterior wall
  - Posterior wall
  - Roof
  - Floor
  - Septum
  - Lateral wall

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Methods

- Mapped regions were assigned a value of
  - 0 (no scar)
  - 1 (mild scar)
  - 2 (dense scar)
- A Cox proportional hazards model identified associations between scar location and 12-month recurrence.

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Results

Figure 1. Example of the scar of the posterior wall of the left atrium (LA).

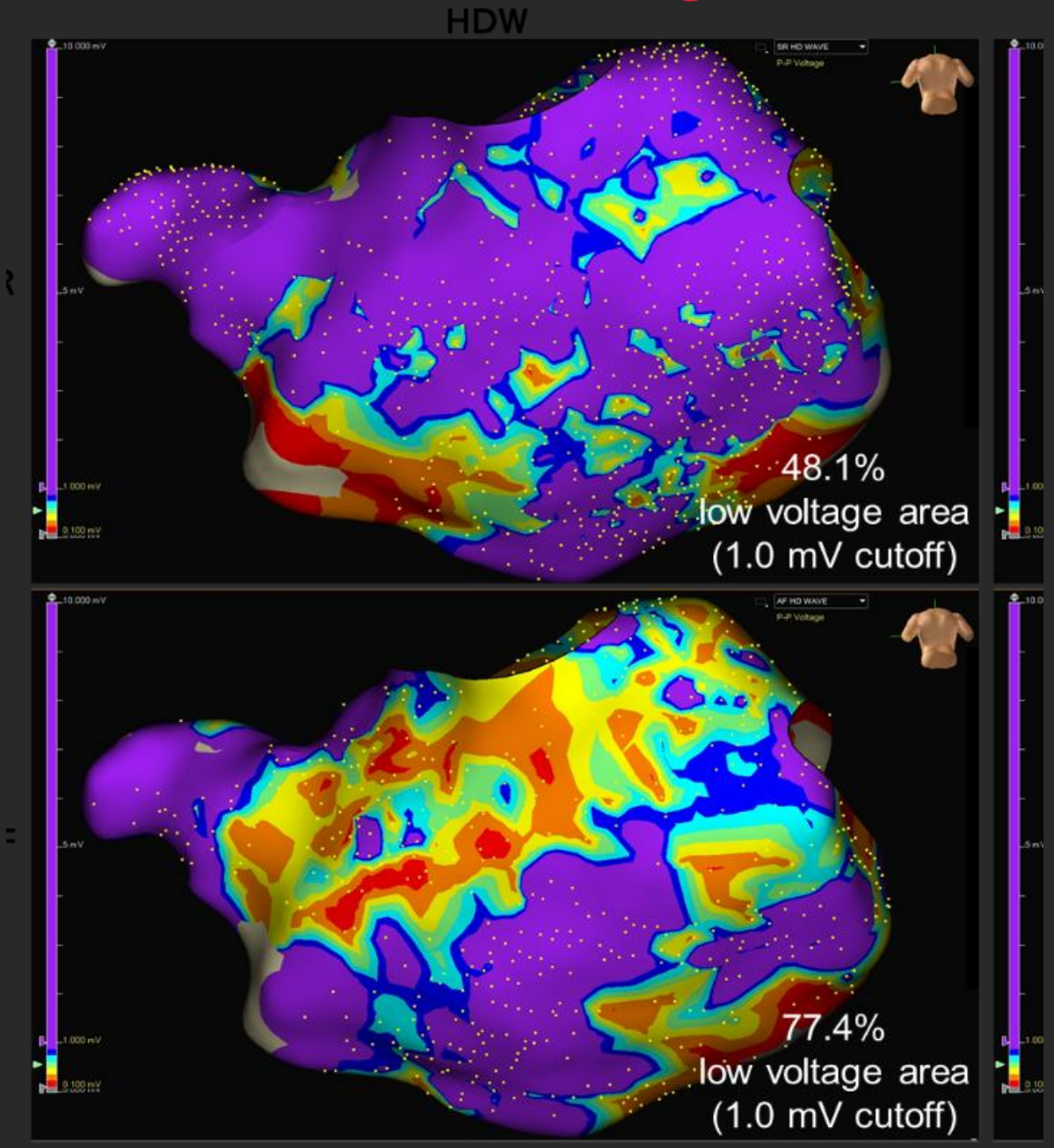

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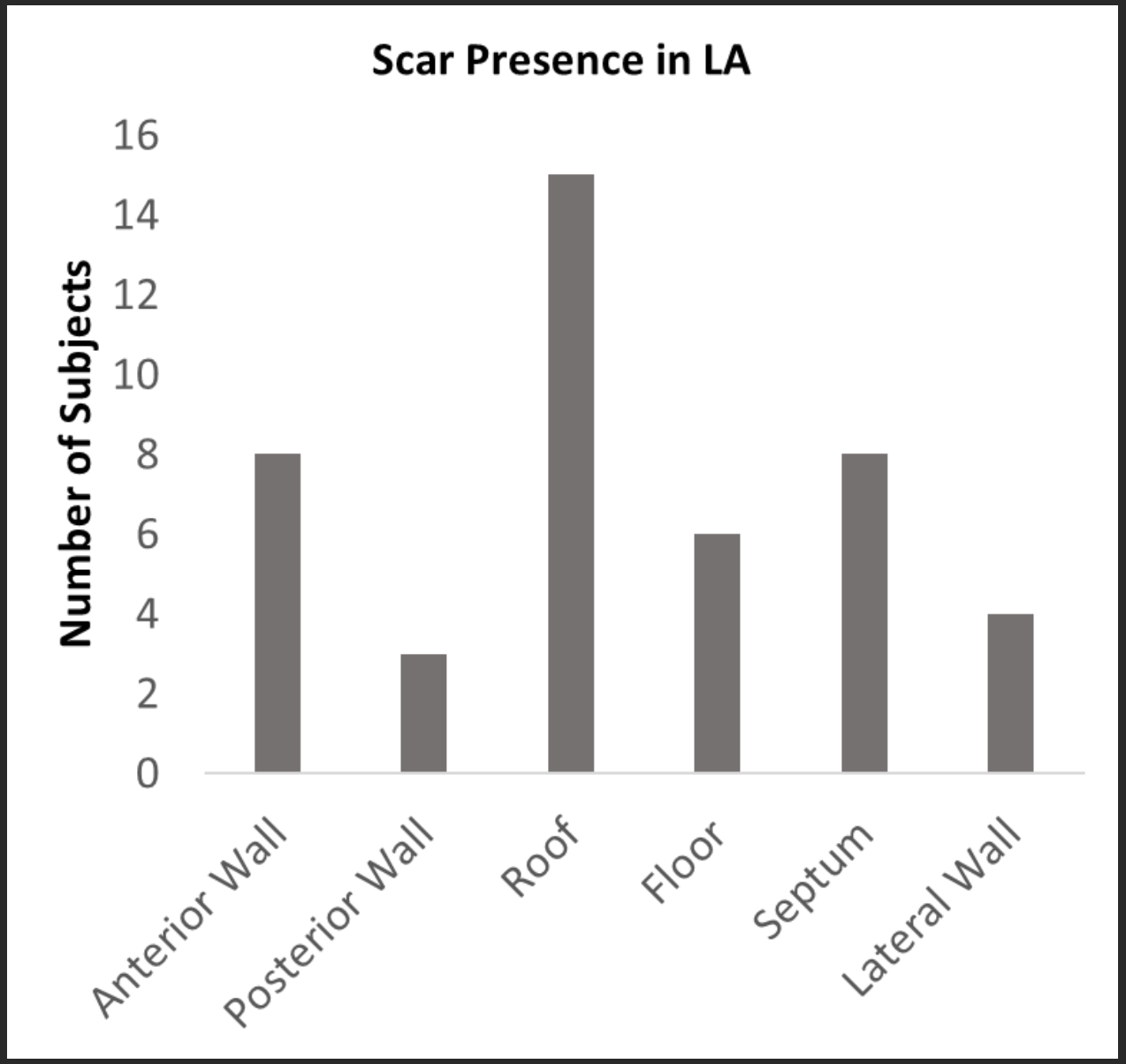
Figure 2. The evaluated locations of scar and their presence in the left atrium (LA).



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Results

- Subjects with scar were significantly older (64.6 vs. 57.5 years, p=0.0072).
- The most common scar location was the roof, in 26.3% (15/57) of subjects
- Roof scar correlated significantly with recurrence (HR: 3.89, 95% CI:1.46-10.39, p=0.0067).
- At 12 months, freedom from recurrence was higher in subjects without roof scar compared to subjects with roof scar (81.0% vs. 42.9%, p=0.0035).

Roof Scar Correlation with Recurrence After A Single PVI Procedure

Results

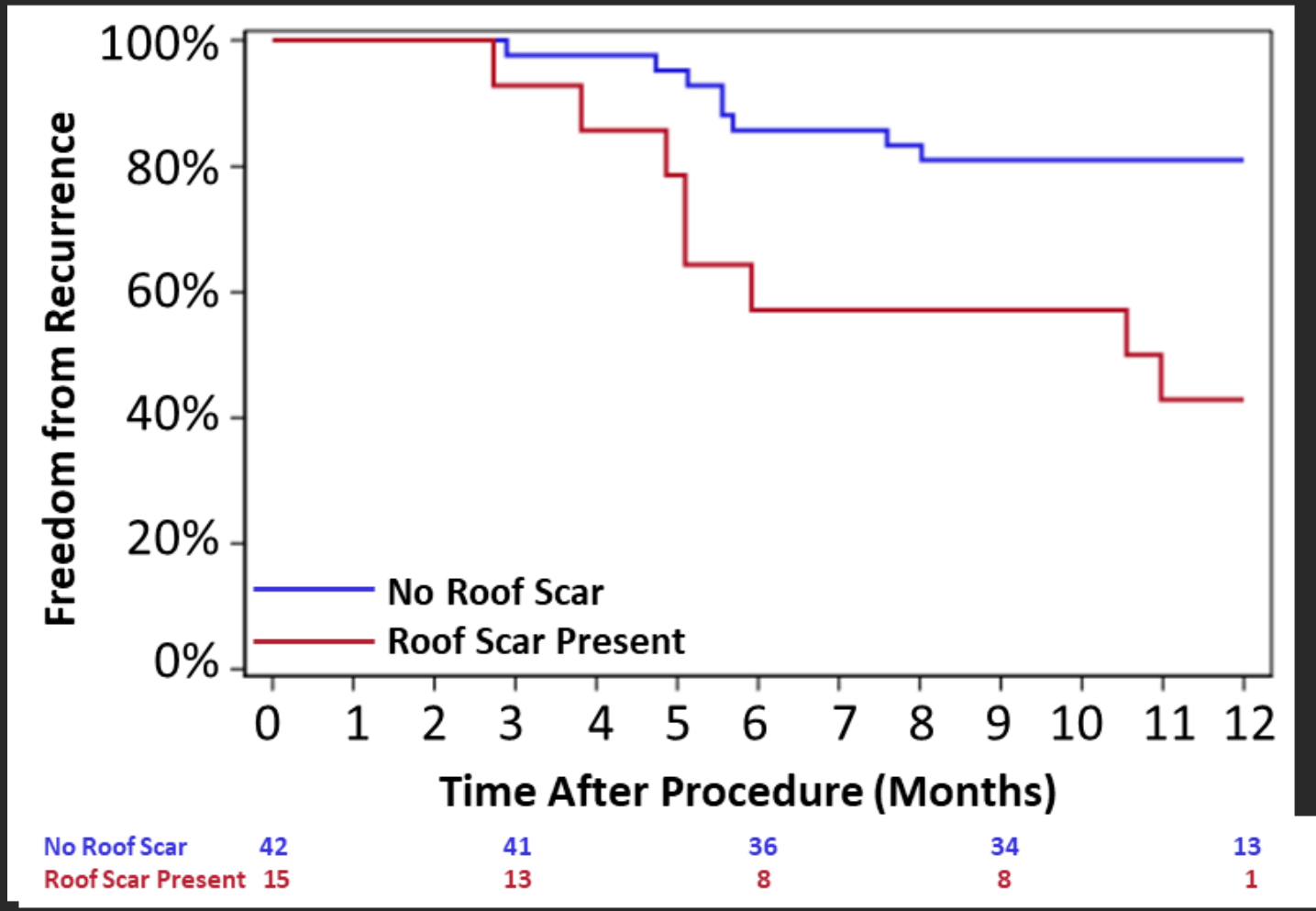

Figure 3. Freedom from recurrence through 12 months by presence of roof scar.

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Conclusions

Presence of scar on the left atrium roof was associated with increased risk of AF recurrence at 12 months.

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