

OUTCOMES OF DIRECT PUNCTURE OF A COMMON FEMORAL ARTERY STENT

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RESEARCH QUESTION

In patients who have undergone common femoral artery stenting, can the stent be safely and effectively punctured in future vascular procedures without short- or long-term implications?

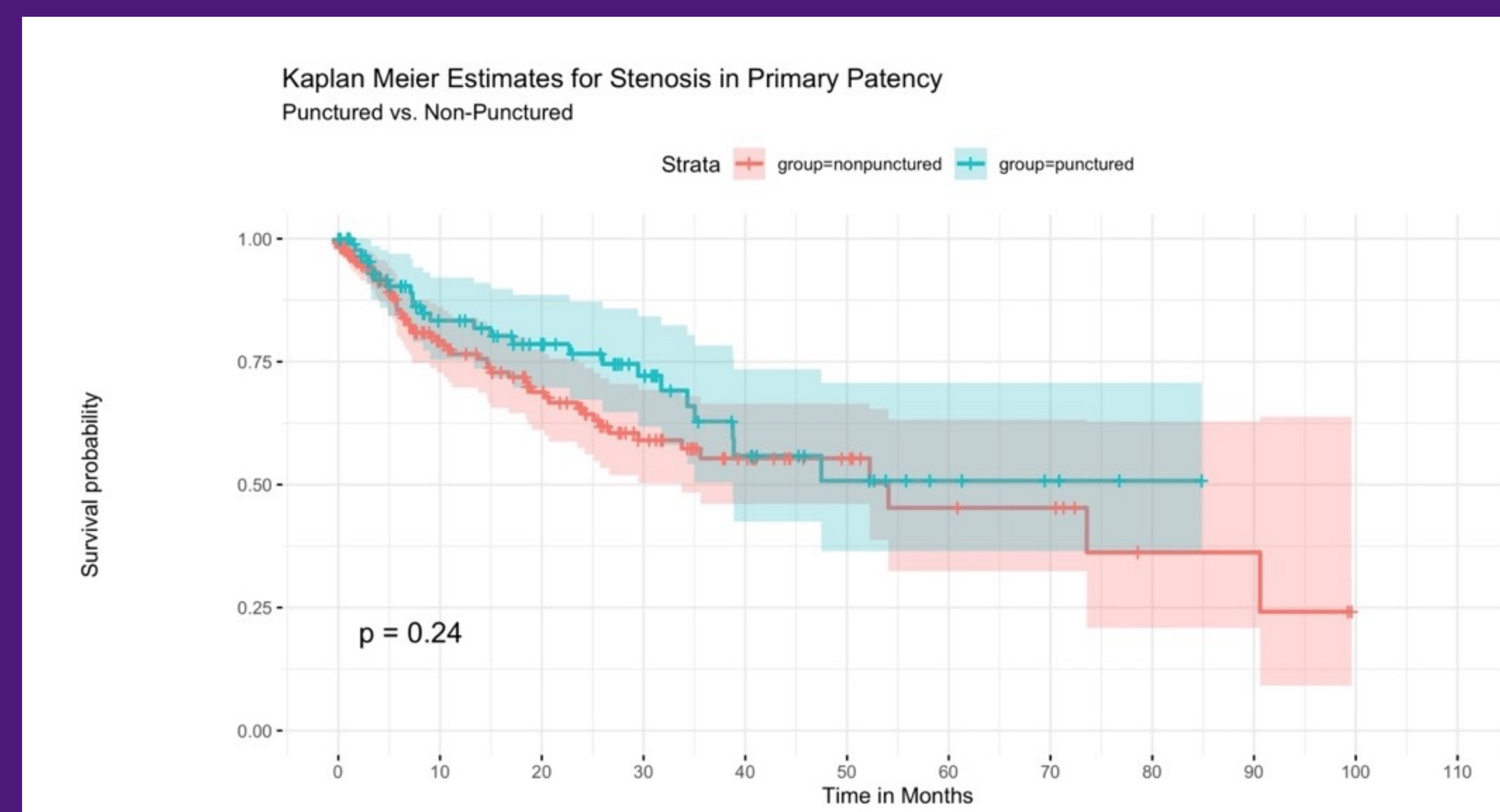
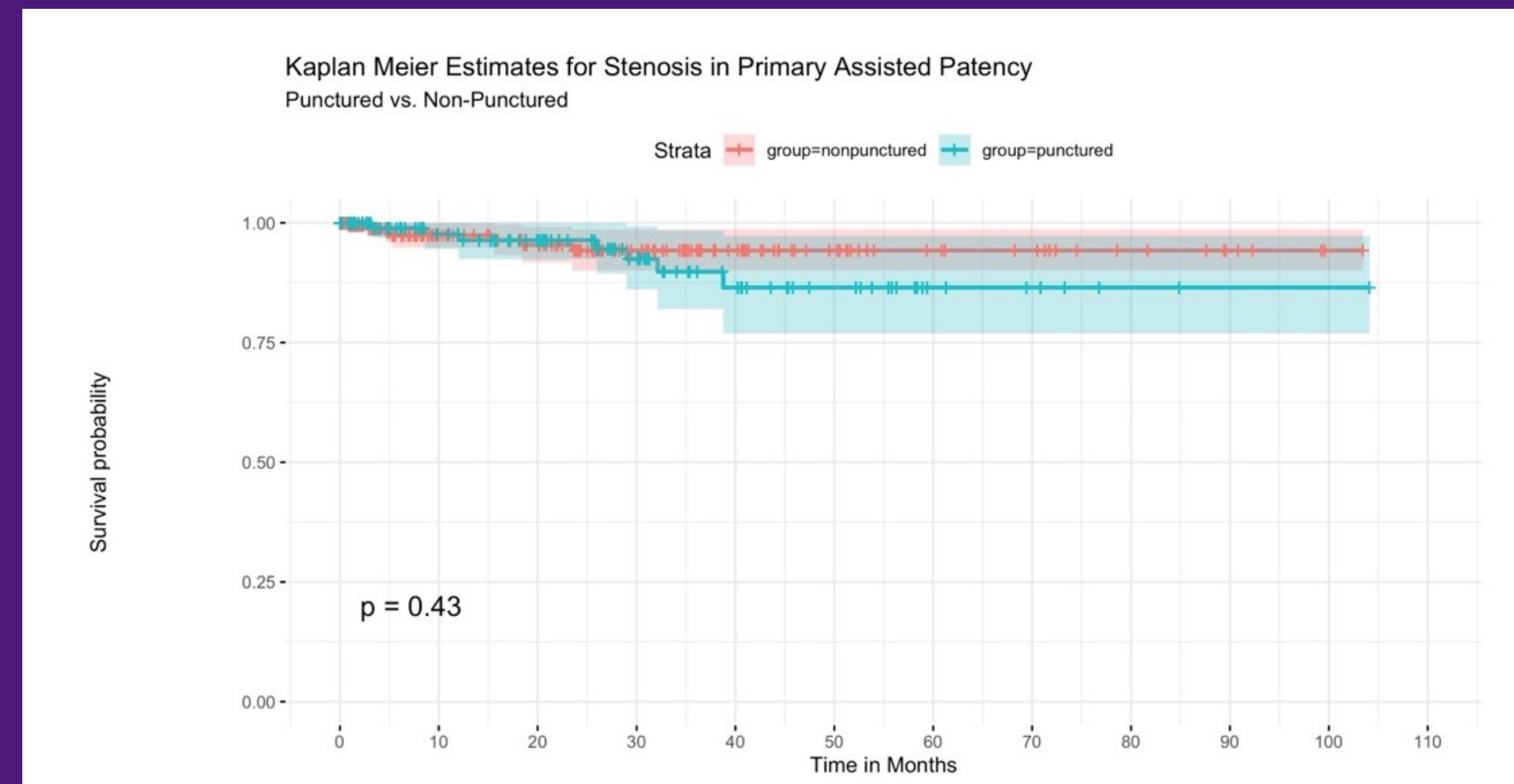
BACKGROUND

Concerns with stenting the common femoral artery (CFA) include limited access to the CFA for future procedures, increased risk of complications by puncturing a stented vessel, and decreased stent patency. There are no studies published that focus on outcomes of direct puncture of a CFA stent for future vascular procedures.

METHODS

- Retrospective review** from 2 centers
- 295 unique patients with **349 CFA lesions treated with stents**
- Among the 349 stented CFAs, we identified 91 unique patients with **108 CFA stents that were punctured at least once**
- These 108 stents had a total of **223 punctures**, constituting the punctured cohort (PC)
- There were a **remaining 241 CFA stents** in the non-punctured cohort (NPC).
- Primary outcome:** patency for the NPC versus the PC
- Secondary outcomes:** total number of punctures per CFA stent, closure device failure rate, and 30-day complications

Direct puncture of a CFA stent is safe and effective with no adverse effect on short- or long-term patency or outcomes.



RESULTS

- No statistically significant difference in risk factors, age, or sex between the PC and NPC
- Total number of punctures in the PC ranged from 1 to 13 (mean 2.03, SD 2.04).
- No statistically significant difference in closure device failure between the PC and NPC (p = .16)
- Complications occurred in 0.9% of cases following CFA puncture (respiratory arrest (1) and left calf swelling and pain (1)), and both were unrelated to the puncture site
- No acute thrombotic complications or infections within 30 days
- No difference in primary patency or primary assisted patency for the PC vs NPC.

FUTURE DIRECTIONS

- Need for randomized controlled trial studying the long-term outcomes of a CFA stent vs endarterectomy
- Outcomes of interest include **long-term patency, incidence of stent fracture, and the number of re-interventions required**

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