

## Patensi primer pascaintervensi angioplasti perkutan pada pasien stenosis vena sentral = Primary patency after percutaneous angioplasty in central vein stenosis patients

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### Abstrak

**Pendahuluan:** Pemasangan kateter vena sentral berhubungan dengan resiko tinggi terjadinya komplikasi, meliputi stenosis vena sentral. Angioplasti perkutan (PTA) merupakan tindakan yang paling direkomendasikan untuk tatalaksana stenosis vena sentral karena angka keberhasilan yang tinggi. Walaupun demikian, patensi primer setelah tindakan PTA sangat bervariasi. Penelitian tentang prediksi patensi setelah tindakan PTA pada kasus stenosis vena sentral sangat terbatas. Oleh karena itu, penelitian ini untuk mencari informasi mengenai patensi primer setelah tindakan PTA beserta factor-faktor yang memengaruhinya di RSUPN Ciptomangunkusumo.

**Metode:** Penelitian ini merupakan studi kohort, dilakukan di RSUPN Cipto Mangunkusumo pada Januari sampai April 2019. Studi ini meliputi pasien dengan stenosis vena sentral yang dilakukan tindakan PTA tanpa stent antara Januari 2014 sampai Februari 2018. Keluaran studi ini merupakan patensi primer setelah tindakan angioplasty perkutan tanpa stent. Variabel independen pada studi ini meliputi usia, jenis kelamin, komorbiditas (hipertensi, gagal jantung kronik, dan diabetes mellitus), arter-vena fistula (AVF) ipsilateral, kadar HbA1c, lokasi kateter, sisi tubuh pemasangan kateter, tipe kateter, dan frekuensi pemasangan kateter. Metode total sampling digunakan dan data diambil melalui rekam medis. Data dianalisa menggunakan program SPSS 20.0.

**Hasil:** Studi ini meliputi 43 sampel. Kadar HbA1c, AVF ipsilateral, sisi tubuh pemasangan kateter dan frekuensi pemasangan kateter berpengaruh signifikan terhadap tingkat patensi primer ( $p < 0.05$ ). Analisa Multivariat dengan regresi logistic menunjukkan bahwa komorbiditas, frekuensi pemasangan kateter  $> 2$  kali, sisi tubuh kiri pemasangan kateter, dan tipe kateter short term meningkatkan kemungkinan terjadinya patensi primer yang lebih dini. Sebaliknya peningkatan kadar HbA1c dan AVF ipsilateral menurunkan resiko terjadinya patensi primer yang lebih dini.

**Kesimpulan:** Kadar HbA1c  $> 7\%$ , AVF ipsilateral, sisi tubuh pemasangan kateter, dan frekuensi pemasangan kateter berhubungan dengan patensi primer yang lebih dini setelah tindakan PTA pada pasien dengan stenosis vena sentral.

.....Introduction: Central vein catheter (CVC) is associated with higher risk of complications, including central vein stenosis (CVS). Percutaneous transluminal angioplasty (PTA) is the most recommended modality to treat CVS due to high technical success rate. However, patency after PTA procedure is still very variable. Studies on patency predictors after PTA in CVS patients are still very limited. Therefore, this study aims to find out the primary patency after PTA in CVS patients as well as the contributing factors in RSUPN dr. Cipto Mangunkusumo.

**Method:** This was a retrospective cohort study, done in RSUPN dr. Cipto Mangunkusumo from January to April 2019. Included patients were hemodialysis patients diagnosed with CVS after PTA, proven by clinical symptoms and diagnostic studies, from January 2014 to February 2018 who were treated with percutaneous angioplasty without stent. Studied outcome is primary patency after percutaneous angioplasty without stent.

Independent variables of this study are age, gender, comorbidities (hypertension, chronic heart failure, and diabetes mellitus), AVF existence, HbA1c level, catheter insertion location, side of catheter insertion, catheter material, and frequency of catheter insertion. Total sampling method was used and data were taken from patients' medical records. Data were analysed using SPSS 20.0 software.

Results: This study included 43 subjects. It is shown that HbA1c level, ipsilateral AVF, side of catheter insertion and catheter insertion frequency have significant association with primary patency ( $p < 0.05$ ).

Multivariate analysis with logistic regression showed that comorbidities, catheter insertion frequency of  $>2$  times, left side of catheter insertion and short term catheter material increase the probability of short primary patency. Meanwhile, increased HbA1C and ipsilateral AVF decrease the risk of short primary patency.

However, no variable has independent association with primary patency.

Conclusion: HbA1c level of  $> 7\%$ , ipsilateral AVF, side of catheter insertion, and catheter insertion frequency are associated with early primary patency after PTA in hemodialysis patients with CVS.