

**Abstract Submission No.: A-0409**

**Clinical evaluation of Drug Coated Balloon; DCB for frequently repeated  
vascular access stenosis**

**Masayuki Itakura**<sup>1</sup>, Naofumi Miwa<sup>1</sup>, Hiroshi Sakurai<sup>1</sup>, Takashi Sato<sup>2</sup>

<sup>1</sup>Department of Radiology, Vascular Access Treatment Center, Kaikoukai Central Clinic, Kaikoukai Healthcare Corporation, Japan

<sup>2</sup>Department of Nephrologist, Vascular Access Treatment Center, Kaikoukai Central Clinic, Kaikoukai Healthcare Corporation, Japan

**Objectives :** We will discuss the clinical effectiveness and the criteria for appropriate use of DCB based on the clinical experiences and outcomes of DCB in our facility.

**Methods :** We examined 21 patients who used DCB for frequently repeated stenosis of intimal thickening type from May 2021 to October 2023 at our institution. The DCB used was IN-PACT™ AV; Medtronic Co. We compared the patency periods and primary patency rates before and after DCB use and examined the factors that contribute to the effective use of DCB.

**Results :** The median patency period in the before DCB group was 65 days, while that in the after DCB group was 180 days, indicating a significant difference with a P value of less than 0.01 (the T-test, the log-rank analysis). Next, a comparison of the rate of change for each patient in the before and after DCB groups showed that about 75% of the patients showed a twofold or more prolongation of the patency period. In the cases in which the patency period was not prolonged, there were cases in which an under-sized DCB was used to a pre-dilatation balloon and cases that re-stenosis was caused by thrombus.

**Conclusions :** DCB is a useful balloon that can prolong the patency period of short-term, frequent re-stenotic lesions with intimal thickening. In using DCB, it is necessary to select an appropriate balloon size, and accurate evaluation of the normal vessel diameter and the extent of intimal thickening are considered important.