XEMEX Technology

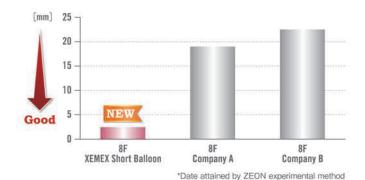
1. High Durability Supportive Nylon Catheter Shaft: Better Placement

- Superior stability of nylon made catheter shaft brings less migration/ less balloon wondering
- Less affected by blood heat and descending blood pressure
- Better flexibility and trackability of catheter

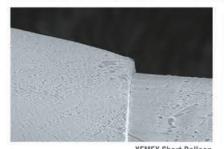
Comparison of catheter migration

Measured tip positioning after 12hour driving in the mock circuit.

The experiment proved that XEMEX Short Balloon is superior to competitors.



2.Less Transition Gap Between Sheeth and Dilator







Competitor

Competitor 2

3.Larger Catheter Inner Lumen

- 0.035 inch large inner lumen
- 0.031 inch large outer diameter guide wire attached for catheter insertion

Product Specification

	Balloon Tray		
Product Code	BPGL3580-SH(E)	BPGL4080-SH(E)	
Balloon Volume	35mL	40mL	
Recommended patient height	≥145cm / ≥4′9″	≥160cm / ≥5'4"	
Catheter Outer Diameter	8F (2.66mm)	8F (2.66mm)	
Balloon Outer Diameter	17.1mm	17.1mm	
Balloon Length	162mm	182mm	
Catheter Active Length	682mm	725mm	
Catheter Inner Lumen	0.035inch (0.88mm)		
Applicable Maximum Guide Wire	0.032inch (0.81mm)		
Balloon Material	Polyurethane		
Outer Catheter Material	Outer layer : Polyurethane , Inner layer : Nylon		
nner Catheter Material	PEEK		
	Introducer Tray		
Sheath Introducer Active Length	17.5cm		
Sheath Introducer Inner Diameter	2.73mm		
Sheath Guide Wire	Stainless steel 0.035inch (0.88mm) ×800mm length		
Catheter Guide Wire	Stainless steel 0.031inch (0.79mm) ×1500mm length		
Monitoring Lines	800mm & 1500mm		

Manufactured by:

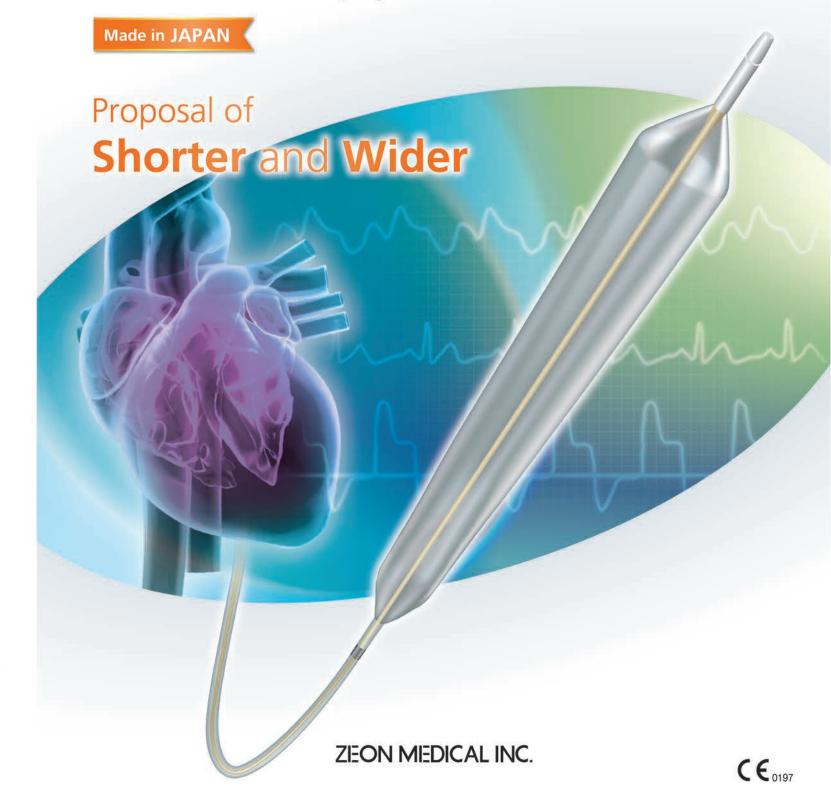
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XEMEX IABP Balloon Plus Short Balloon

Intra Aortic Balloon Pumping (IABP) Balloon Catheter





Proposal of

Shorter and Wider

Patient-oriented

XEMEX Short Balloon development



Avoid Complications:

Secure visceral artery perfusion

- No compromise of renal, celiac and mesenteric arterial perfusion
- Less balloon leak possibility
- Increase visceral flow and prevent visceral ischaemia

Wider

Shorter

POINT 2

Efficacy:

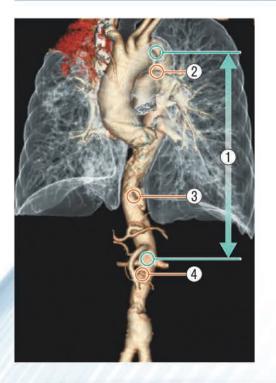
High counterpulsation performance

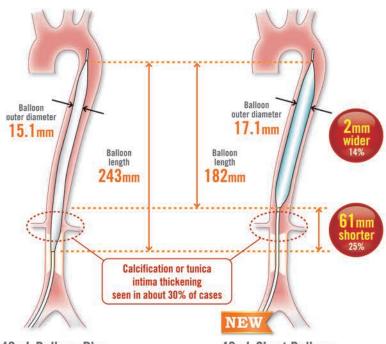
- Higher augmentation from increased balloon outer diameter
- Increase more coronary blood flow

POINT 1

Avoid Complications: Secure visceral artery perfusion

Measurement of Aorta diameter and distance





40mL Balloon Plus

40mL Short Balloon

	No. of patients	Mean age (years)	Mean height (cm)	Distance from left subclavicular artery to aorta below renal artery (mm)	Minor diameter of descending aorta (mm)	Minor diameter of subphrenic aorta (mm)	Minor diameter of aorta below renal artery (mm)
Male	60	66.5	163.2	231.6	25.3	22.6	17.1
Female	40	72.6	148.5	211.0	23.2	21.2	14.0
Total	100	68.5	157.5	224.9	24.6	22.2	15.9

^{*100} patient data by CT contrast media injection *Data from Hokkaido Social Insurance Hospital, Japan

POINT 2

Efficacy: High counterpulsation performance

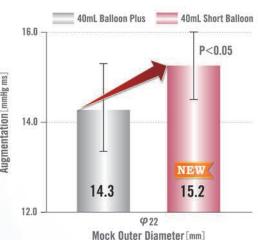
40mL Short Balloon and 40mL Balloon Plus comparison



More efficient profile

		Balloon Plus		Short Balloon
35mL	Balloon outer diameter	15.1mm	17.1mm	2mm wider (14%)
SOME	Balloon length	214mm	162mm	52mm shorter (24%)
40mL	Balloon outer diameter	15.1mm	17.1mm	2mm wider (14%)
	Balloon length	243mm	182mm	61mm shorter (25%)

More blood flow because of less space between aorta wall and balloon membrane 40mL Balloon Plus 40mL S



*Mean value of ten beats *Error bar indicate Max. and Min. value