

# SYM-LAB

SYM is devoted to the innovative application of medical balloon technique to better serve patients and medical workers worldwide since its establishment in 1995.

Healthcare professionals are the users of medical devices as well as the inventors. Their expertise and creativity are the engine of healthcare innovation. SYM is committed to working hand in hand with experienced and creative medical workers to successfully transform their wisdom and ideas into innovative medical products that can be well accepted by market in the shortest possible time.

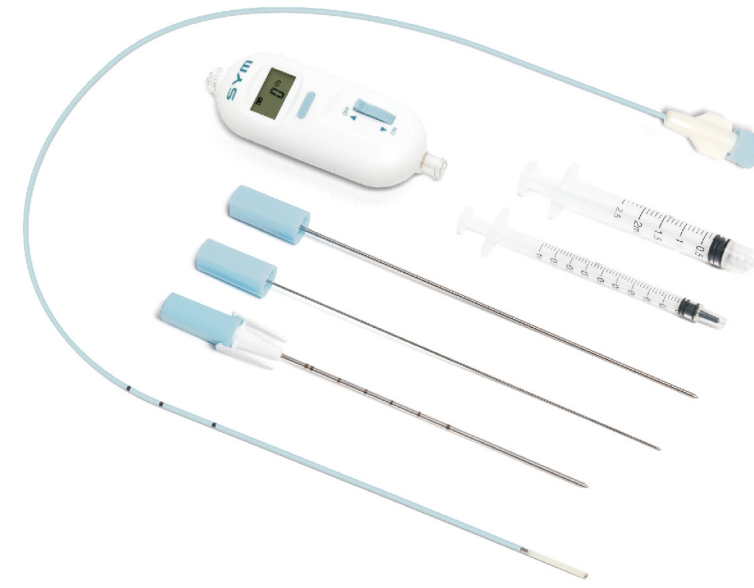


## What's PBC

Under general anesthesia, a balloon is introduced into the semilunar segment of the trigeminal nerve in Meckle's cavity through a sheath tube under X-ray fluoroscopy monitoring, and the expanded microballoon is used to compress and selectively damage the nerves related to pain transmission.

## Why PBC

- ① MIS with fast postoperative recovery
- ② Feel painless under general anesthesia
- ③ Applicable for the TN patients of all ages
- ④ High treatment efficiency and low recurrence rate
- ⑤ Surgery is relatively economical
- ⑥ Shorter hospital stay, usually on the second day after surgery



Complete Configuration

Excellent Controllability

Pressure Visualization

## Features and Benefits

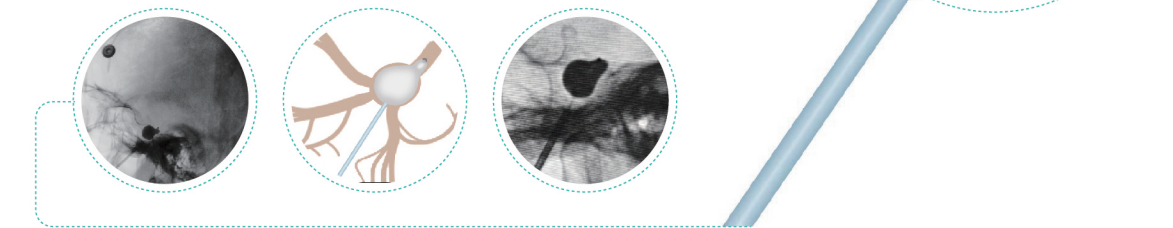
Specially Designed Manometer Achieves Precise Pressure Measurement

- Data visualization makes pressure control easier and faster
- High-precision pressure range dedicated to PBC: -10~600Kpa
- Three pressure modes are available: atm, KPa, mmHg
- One-time use, no cross-contamination



## Optimized Balloon Catheter Better Caters to Clinical Needs

- Combination of enhanced elasticity and higher burst pressure resistance facilitates a better "Pear" shape.
- Built-in metal mark on the distal end allows accurate identification of the balloon position.



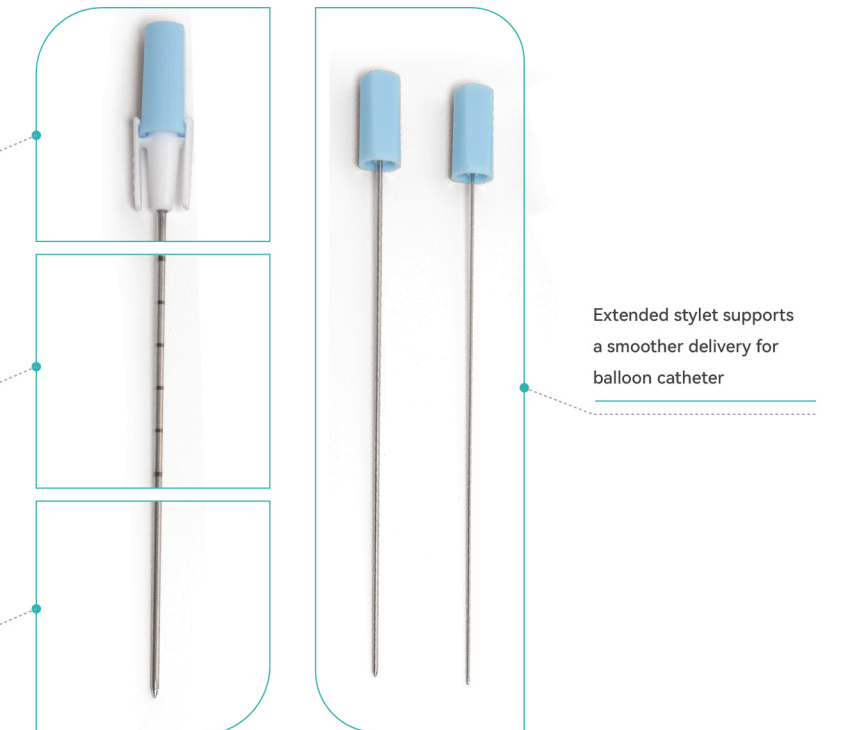
## Puncture Needle Set Exclusive to PBC Enables a Precise Operation

New buckle patented design ensures grip fastness and a safe procedure

Measuring marks on needle and catheter offer scientific depth reference

Blunt puncture needle tip minimizes accidental tissue damage

Extended stylet supports a smoother delivery for balloon catheter



The total number of SYM PBC clinical cases exceeds 60,000 since it came into the market.

#### Conclusion [1]:

Follow-up results of 12,838 cases of PBC surgery carried out by Liaoning Provincial People's Hospital showed that: PBC postoperative pain complete relief rate (complete painless) reached 95.6%. Our study shows PBC is a safe, simple and effective procedure, with both immediate and long-term success rates, acceptable side effects and fewer deadly complications.

Immediate Pain Relief	Value(%)
Complete Relief	12,273 (95.6)
Partial Relief	141(1.1)

#### Conclusion [2]:

Postoperative follow-up of 291 PBC patients in Beijing Tiantan Hospital showed that, the complete pain relief rates of 3D-CT-guided and C-arm-guided PBC surgery in the treatment of patients with idiopathic trigeminal neuralgia were 95.7% and 94.7%. And all patients had no puncture-related complications.

#### Clinical research on SYM trigeminal balloon and manometer [3]:

The disposable manometer achieves the visualization of the intra-balloon pressure in PBC surgery, which has important referential value in the individualized treatment of patients with Meckel's cave with different volumes and shapes.

All 13 patients studied in this literature had complete pain relief at discharge. Through the digital display manometer, the pressure in the balloon during the operation is reflected in data, and personalized treatment is carried out.

#### References:

[1] Yi Ma, Percutaneous Microcompression for Idiopathic Trigeminal Neuralgia: curative effects and complications. Research Square.

[2] Fang Luo, Comparison of Effectiveness and Safety between Intraoperative 3D-CT -Guided and C-Arm Guided Percutaneous Balloon Compression for Idiopathic Trigeminal Neuralgia:A Multi Center Retrospective Study.

[3] Dongle Huang . A Prospective Study to Examine the Association of the Foramen Ovale Size with Intraluminal Pressure of Pear-Shaped Balloon in Percutaneous Balloon Compression for Trigeminal Neuralgia. Pain Ther (2021)10:1439-1450.



## Matreneu<sup>®</sup>

### Percutaneous Balloon Compression Kit

One-stop Solution Specially Designed for Trigeminal Neuralgia

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