

Novel debulking model for Rotational Atherectomy system named ATSUSHIKUN

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[Background] Rotational Atherectomy (RA) developed to debulk atherosclerotic plaque. It makes enable to treat the lesion which is difficult to expand with balloon catheter to modify the plaque morphology. There are some tips and techniques to use RA safely, but to learn about them with wet labo was difficult because of the lack of the good stenotic model for debulking. We have made the novel stenotic model for RA named ATSUSHIKUN and performed the training of RA in wet labo, porcine model.

[Methods] A 2.75 mm Taxus Liberte stent was removed and was cut into 3-4 mm length, then were put on four folds on the center of another Taxus Liberte stent. This stenotic model was named ATSUSHIKUN. ATSUSHIKUN was delivered to coronary artery and inflated at 6 to 8 atm. Intravascular ultrasound guided post dilatation was performed at proximal site of ATSUSHIKUN to achieve adequate stent apposition. After the deployment of ATSUSHIKUN, RA was performed using 1.5mm burr followed by 2mm, 2.15mm burr. Total ablation time of RA with each burr reached more than three minutes and the feeling of burr was quite similar to severe calcified plaque.

[Conclusion] ATSUSHIKUN enabled to train RA in porcine model more effectively.