

### Large stents may infold during implantation – how to avoid and treat?

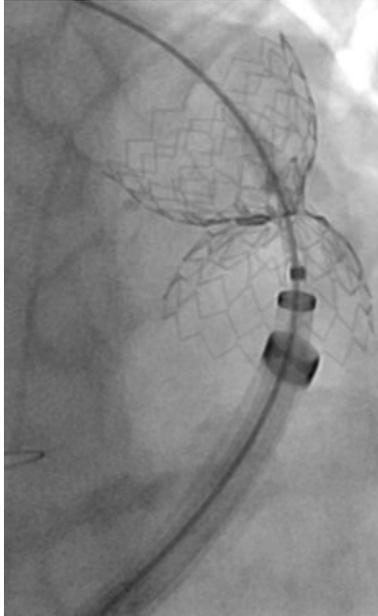
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Introduction: Stent infolding or „Diabolo“configuration can occur during implantation of long stents on large low pressure balloons.

Methods: We review 3 cases with stent infolding and discuss potential mechanisms as well as possible treatment options.

Results: Two patients long after tetralogy of Fallot surgical correction were indicated for percutaneous pulmonary valve implantation. As both had „native“ outflow tracts, the first step to create a landing zone. In the first patient a 57mm Andra XXL stent was mounted on a VACS balloon 30/60mm, but during implantation into the left pulmonary artery the stent showed a „Diabolo“ configuration and the balloon ruptured. It was possible to pass the infolded stent centrally and dilate it with high pressure balloons. A second 57mm Andra XXL stent was implanted uneventfully over a 24x50 BiB balloon and Sapien valve 26mm was implanted. In the second patient an Andra XXL 48mm stent, which was mounted on a Crystal Balt CBV 30/60mm balloon showed a „Diabolo“ configuration during attempted



implantation into the right ventricular outflow tract (figure 1). The Crystal Balt balloon could not be retrieved or passed centrally through the infolded stent for additional dilation. The patient was operated and recovered well. The third patient had a „failing“ Fontan due to a highly stenotic extracardiac conduit. An Andra XXL 57mm stent was mounted on a 22mm BiB. During an implantation attempt into the conduit with the outer balloon only stent infolding occurred. With inflation of the inner balloon, followed by implantation of additional stenting and dilations with high pressure balloons the stent could be expanded to the desired diameter. This patient recovered uneventfully.

Conclusions: Stent infolding is a possible during implantation of long stents on large low pressure balloon. Using a BiB for stent implantation could help to avoid this complication. After crossing the infolded region centrally, dilation with high pressure balloons can be a feasible treatment.