Nellix Plug For Occlusion Of False Lumen In Chronic Dissection

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### Background
- Aneurysmal degeneration in chronic dissections of the arch and descending aorta occur in up to 40% with a 5% yearly risk of rupture
- Endovascular repair, covering primary entries of the descending aorta will lead to a disappointing low frequency of false lumen thrombosis and remodelling
- “Spot repair” of re-entries often requires multiple reoperations and “full metal jacket” carries a high risk of paraplegia

### Patients
- Two male patients 67 and 58 years old with type A dissections operated with short ascending grafts in 2010 and on female age 72 with a type B dissection in 2012, all had increasing aneurysmal degeneration in the proximal descending aorta with diameters from 6 to 7 cm.
- From July to October 2015, two of the patients were treated after primary repair with an ascending branched repair and a straight graft repair from the left Subclavian artery, with continued expansion of the false lumen, and the third patient was treated with a primary repair I conjunction with a branched ascending repair

### Technique
- Reinforcement of true lumen in the distal part of the descending aorta with a Sinus XL stent
- Access to the false lumen trough re-entries in the iliac arteries, placing a 100 mm Nellix graft parallel to the distal part of the true lumen reconstruction
- After prefilling of the end bags with saline to the patients systolic pressure, an angiogram and a cone beam CT was made to ensure occlusion of false lumen and patency of true lumen
- Saline volume was replaced with polymer, graft lumen was plugged with a 10 mm EOS plug, and a final check was made with angiography and Cone beam CT

### Results & Follow up
- All patients had false lumen occlusion at 30 days postop CT scan and no complications related to the Nellix plug

*Checking false lumen filling before implant, Nellix graft in place, after polymer filling and plugging graft lumen.*

*Perioperative Cone beam CT control.*