INITIAL LATIN AMERICAN EXPERIENCE WITH THE NEW PULSTA TPV VALVE IN POST SURGICAL MODIFIED RVOT

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Introduction:

Chronic pulmonary valve regurgitation or stenosis is the culprit of mid- and longterm complications in patients with RVOT congenital anomalies. The new Pulsta TPV is a self-expanding percutaneous heart valve designed to be implanted in a native patched right ventricle outflow tract.

The worldwide clinical experience with this valve is just beginning

In our experience we also implanted the Pulsta TPV valve in dysfunctional Homograft, and in native RVOT that required a previous stenting.

We present our initial experience implanting the Pulsta TPV valve in patients with post-surgical modified RVOT in this 3 different conditions.

Methods:

The valve was intended to be implanted in 17 patients. 10 women, 7 men. Mean age was 42 years (23-68), mean weight 72.5 kg (40-75). All were post surgical modified RVOT.

8 patients were Tetralogy of Fallot with transannular patch with severe pulmonary regurgitation.

3 patients had Homograft with stenosis and severe regurgitation and stenting of the RVOT before the implant was required.

6 patients had a native RVOT that required pre stenting to create a safe landing zone.

All the patients had right ventricle hypertrophy and or dilation and RV dysfunction, reduction in their NYHA class, and meet all the criteria for pulmonary valve replacement.

Results:

The implantation procedure was successful in all the patients resulting in an immediately functional valve and no gradient across it.

We had an immediately embolization that required a hybrid approach to make a safe plication of the valve inside the MPA.

The valves implanted were between 2and 4 mm larger in diameter than the minimal diameter of the pulmonary artery or the stent previously implanted.

15 were discharged 24 hs after the procedure. One patient, with various comorbidities, developed pulmonary edema that resolved 72 hours post implant. This patient needed a challenging pre stenting of the stenotic RVOT before the successful delivery of the valve.

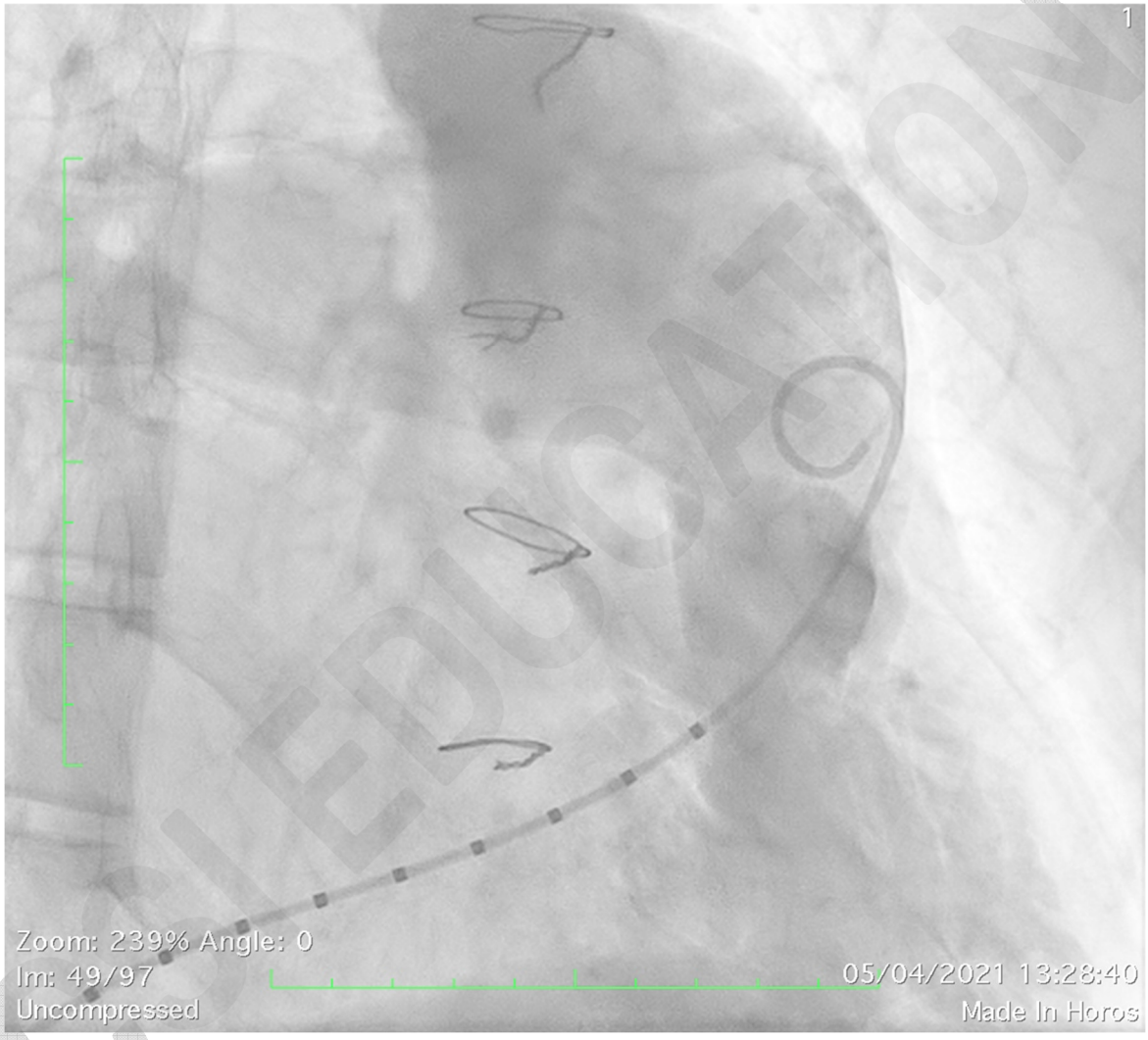
The patient that needed the hybrid approach to fix the valve was discharged 5 day after the procedure.
Follow up with TTE was done at 6 month and 1 year post procedure.

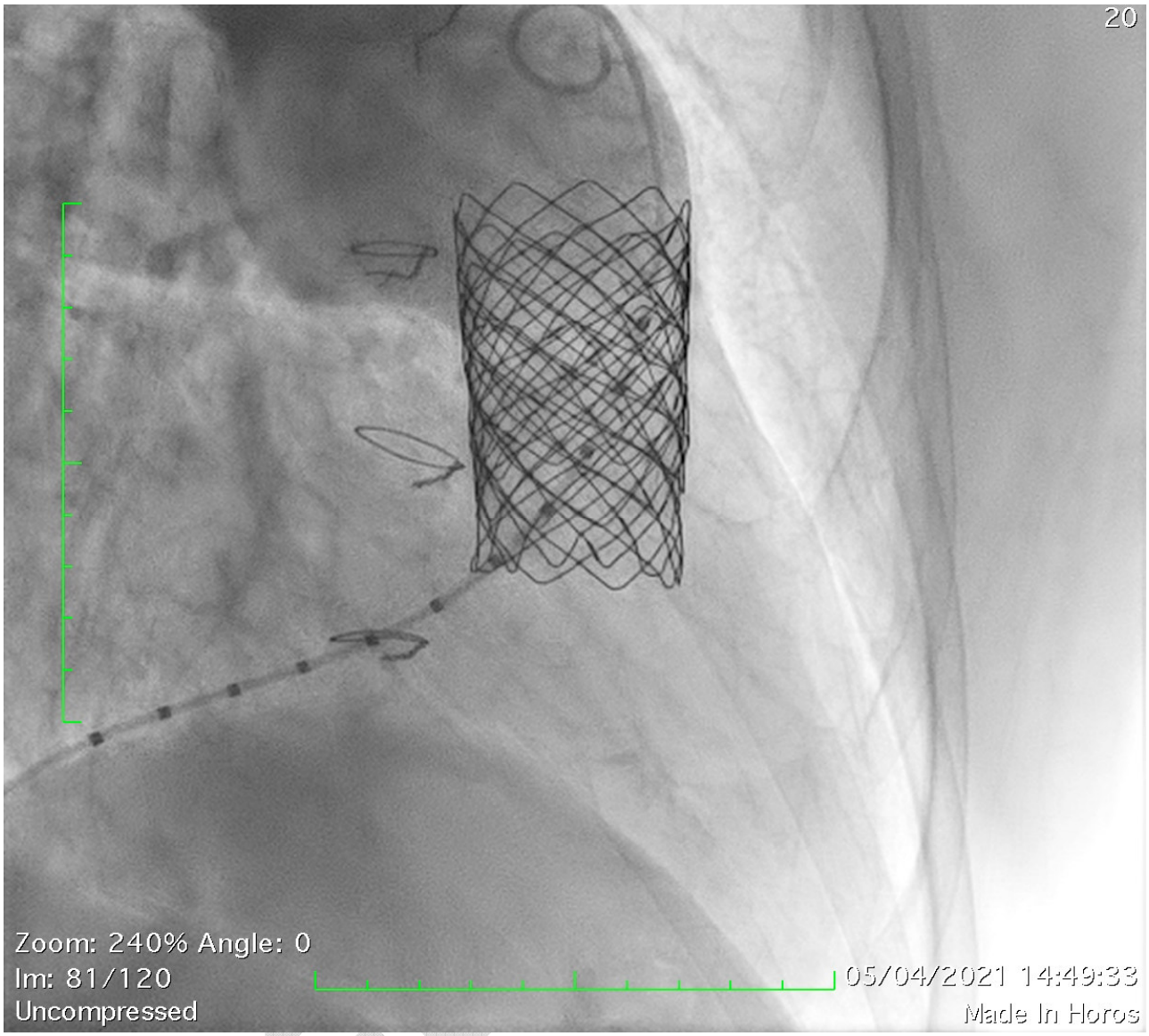
There was no significant pulmonary valve regurgitation or stenosis, with a notoriuos change in functional class from III/IV NYHA to I/II.

Conclusion:

Percutaneous pulmonary valve replacement with the Pulsta TPV valve was safe and effective even with pre stenting of the RVOT.

More time and cases are necessary to get significant conclusions but these initial results are encouraging.

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