

2022

Insuficiencia de la valvula Pulmonar en Post Operados

Dr. Junior Greco

Cardiólogo Pediatra Intervencionista



2022

Paciente: ARG

Edad: 15 años

Peso: 40Kg Alt: 152cm

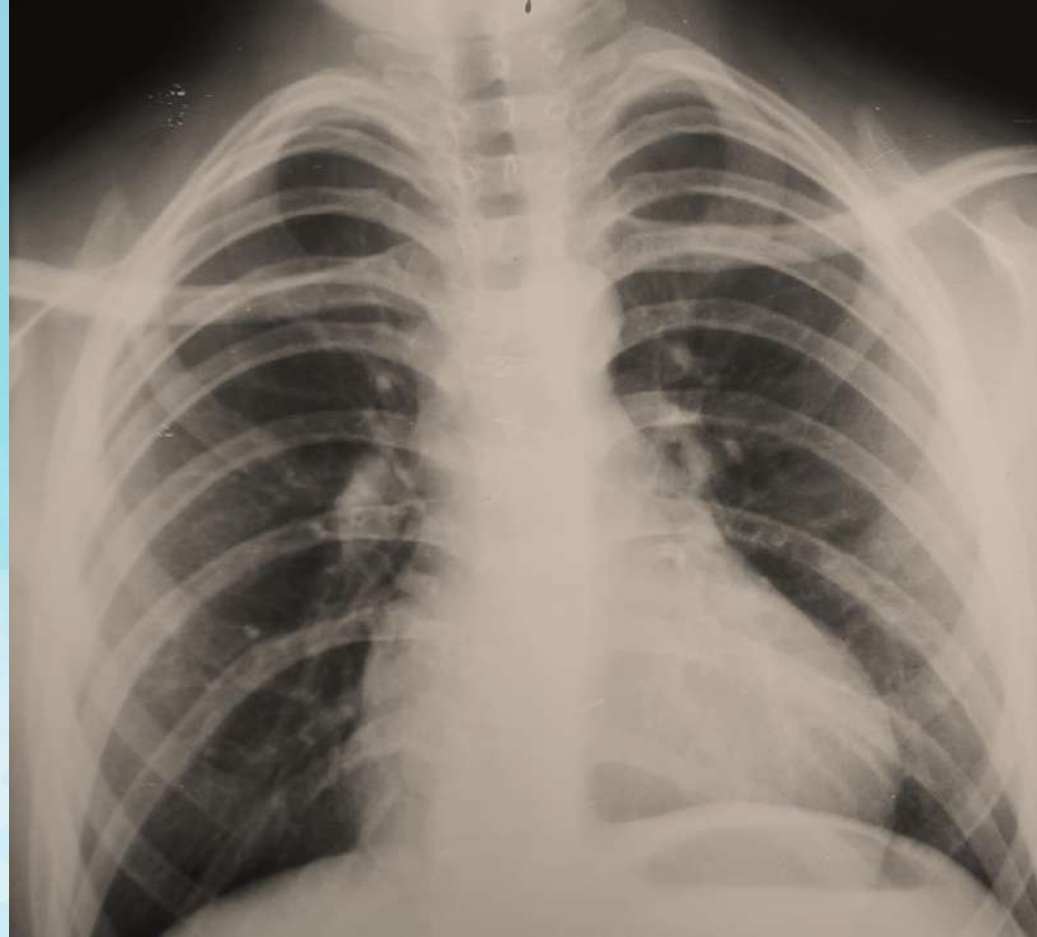
Diagnóstico: Síndrome de Down

POT de T4F en el 2008

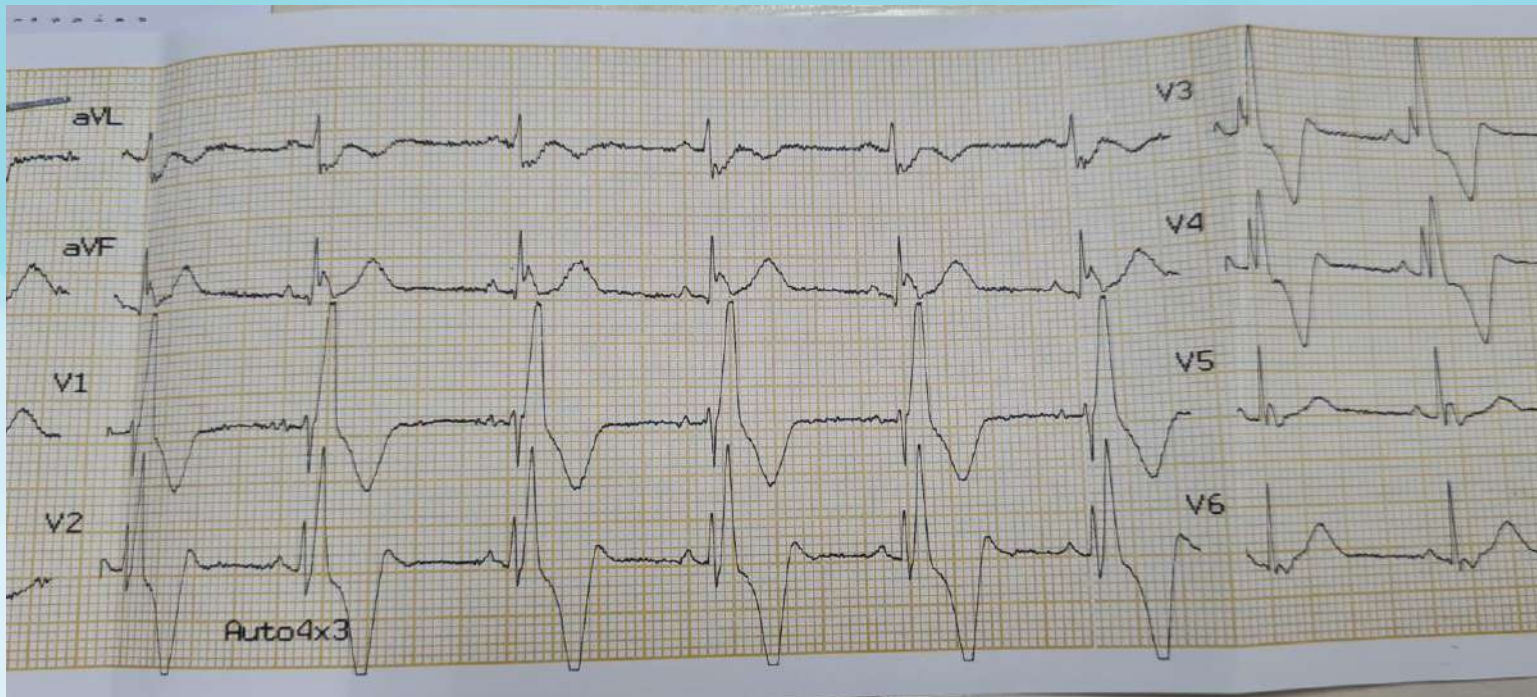
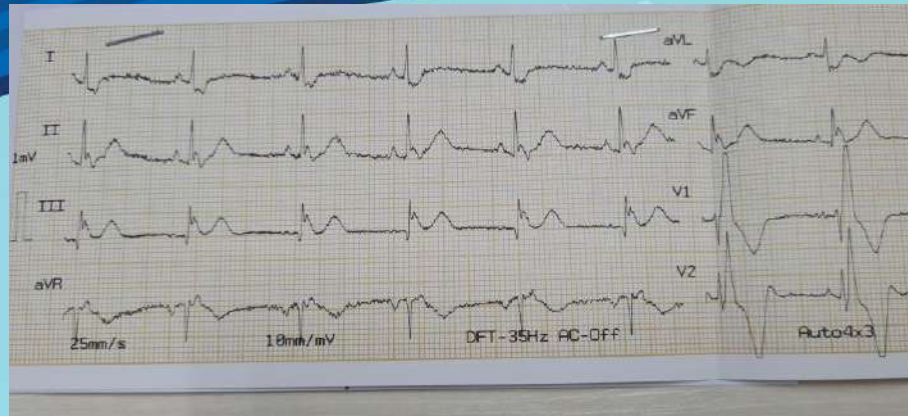
Cansancio al caminar.

Auscultación soplo diastólico III/IV en foco pulmonar, ritmo regular, pulsos palpables en 4 miembros

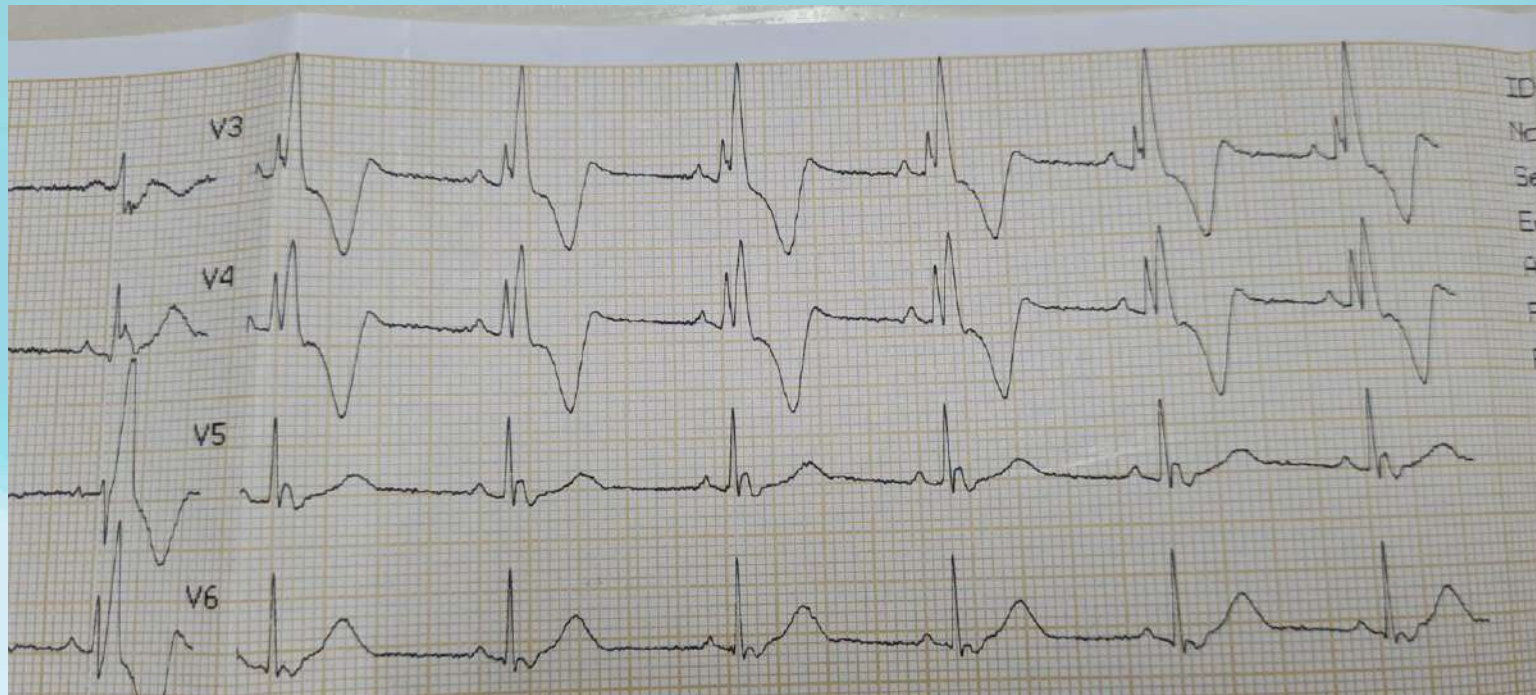
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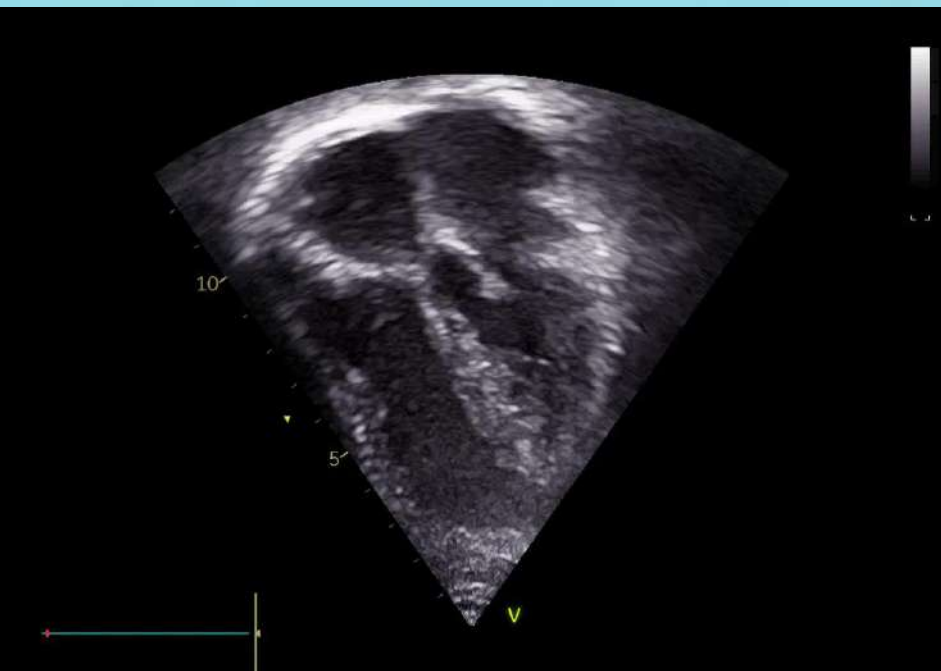
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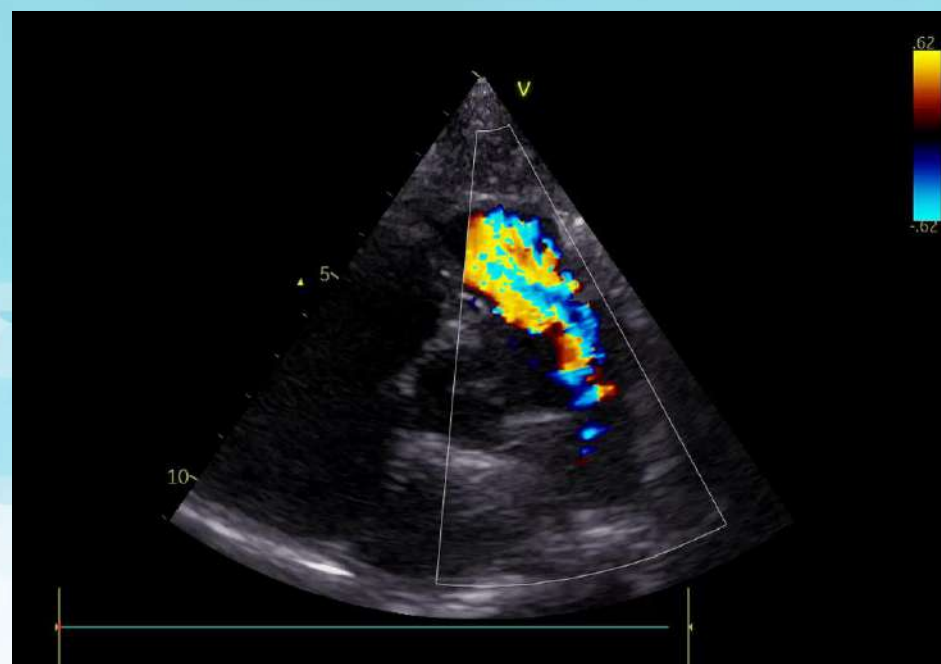
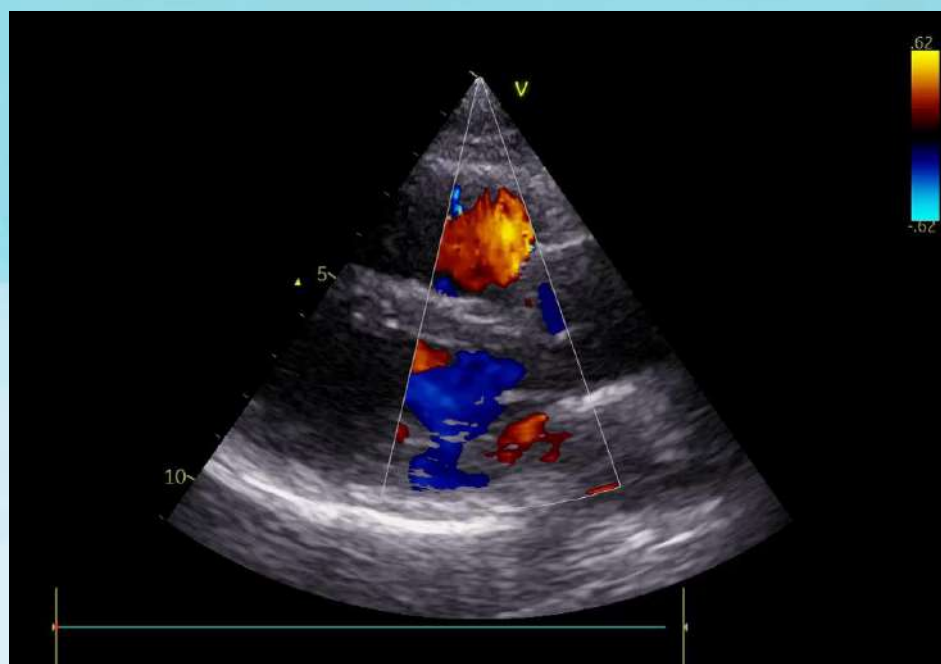


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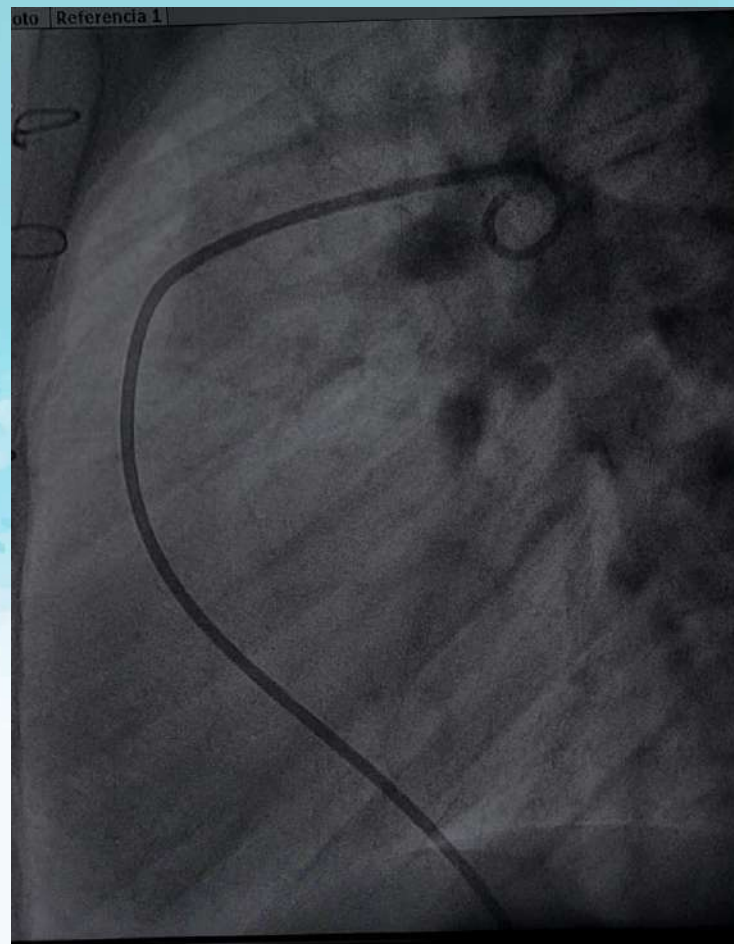
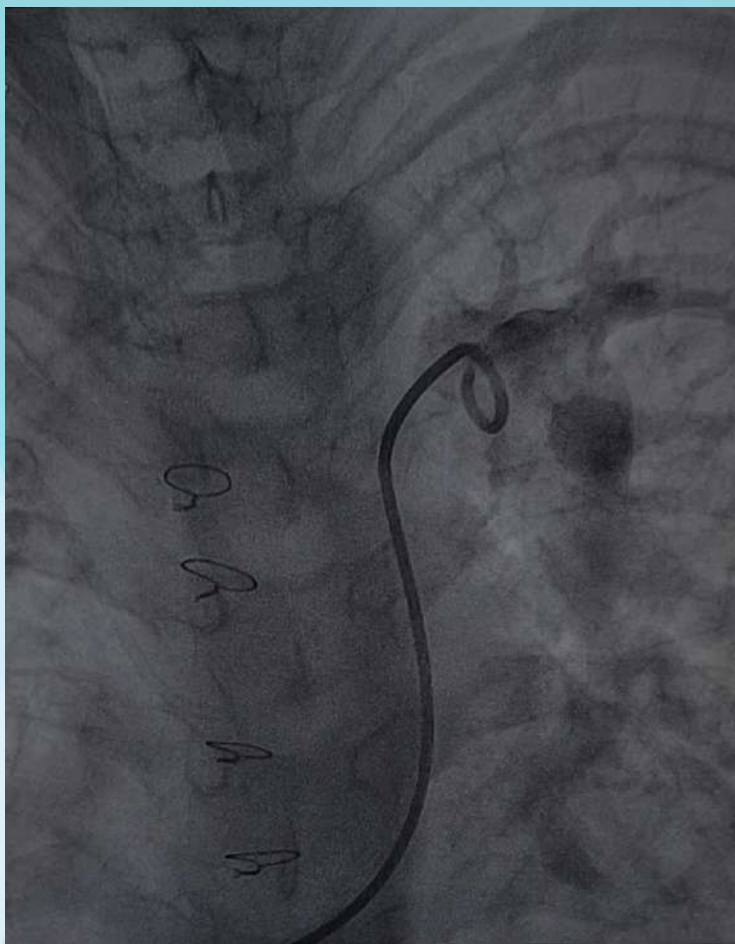


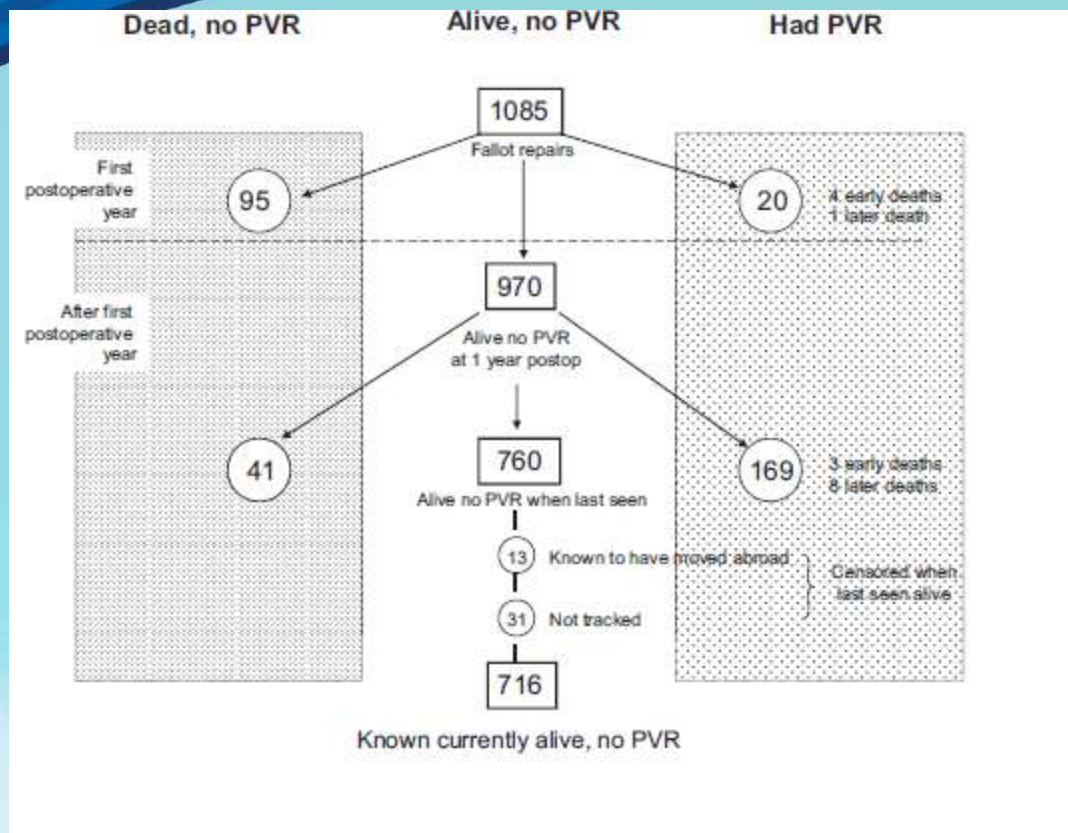
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Physiological and Phenotypic Characteristics of Late Survivors of Tetralogy of Fallot Repair Who Are Free From Pulmonary Valve Replacement. Frigiola, MD, et al. *Circulation* October 22, 2013

- Los pacientes sobrevivientes entre 10 y 50 años tenían un riesgo anual de muerte de 4 veces la de los contemporáneos normales.
- 189 pacientes han sido sometidos a RVP secundaria en la media de edad de 20 ± 13 años (36% de los vivos a los 40 años)

Physiological and Phenotypic Characteristics of Late Survivors of Tetralogy of Fallot Repair Who Are Free From Pulmonary Valve Replacement. Frigiola, MD, et al. *Circulation* October 22, 2013

Table. Proposed Indications for PVR in Patients With Repaired TOF or Similar Physiology With Moderate or Severe PR (Regurgitation Fraction $\geq 25\%$)

Indications	Supporting References
I. Asymptomatic patients with ≥ 2 of the following criteria:	
a. RV end-diastolic volume index >150 mL/m ² or z score >4 . In patients whose body surface area falls outside published normal data: RV/LV end-diastolic volume ratio >2	10, 12
b. RV end-systolic volume index >80 mL/m ²	11, 13
c. RV ejection fraction $<47\%$	11, 15, 16
d. LV ejection fraction $<55\%$	11, 15, 16
e. Large RVOT aneurysm	17, 18
f. QRS duration >160 ms	11
g. Sustained tachyarrhythmia related to right-sided heart volume load	6
h. Other hemodynamically significant abnormalities:	
• RVOT obstruction with RV systolic pressure ≥ 0.7 systemic	19
• Severe branch pulmonary artery stenosis ($<30\%$ flow to affected lung) not amenable to transcatheter therapy	
• Greater than or equal to moderate tricuspid regurgitation	19
• Left-to-right shunt from residual atrial or ventricular septal defects with pulmonary-to-systemic flow ratio ≥ 1.5	19
• Severe aortic regurgitation	19

- ii. Symptomatic patients fulfilling ≥ 1 of the quantitative criteria detailed above. Examples of symptoms and signs include:
- Exercise intolerance not explained by extracardiac causes (eg, lung disease, musculoskeletal anomalies, genetic anomalies, obesity), with documentation by exercise testing with metabolic cart ($\leq 70\%$ predicted peak \dot{V}_{O_2} for age and sex not explained by chronotropic incompetence)
 - Signs and symptoms of heart failure (eg, dyspnea with mild effort or at rest not explained by extracardiac causes, peripheral edema) 19
 - Syncope attributable to arrhythmia
- iii. Special considerations:
- Because of higher risk of adverse clinical outcomes in patients who underwent TOF repair at ≥ 3 years of age, PVR may be considered if they fulfill ≥ 1 of the quantitative criteria in section I 16
 - Women with severe PR and RV dilatation or dysfunction may be at risk for pregnancy-related complications. Although no evidence is available to support benefit from pre-pregnancy PVR, the procedure may be considered if fulfilling ≥ 1 of the quantitative criteria in section I 20

LV indicates left ventricular; PR, pulmonary regurgitation; PVR, pulmonary valve replacement; RV, right ventricular; RVOT, right ventricular outflow tract; and TOF, tetralogy of Fallot.

Indications for Pulmonary Valve Replacement in Repaired Tetralogy of Fallot. Tal Geva, MD. *Circulation* October 22, 2013

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- EL Reemplazo de válvula pulmonar en pacientes **asintomáticos** con regurgitación moderada o importante POT de T4F es adecuada?????

Whether Pulmonary Valve Replacement in Asymptomatic Patients With Moderate or Severe Regurgitation After Tetralogy of Fallot Repair Is Appropriate: A Case-Control Study

Fengpu He, MD, PhD; Zicong Feng, MD, PhD; et al. J Am Heart Assoc. 2019;8:e010689. DOI: 10.1161/JAHA.118.010689.)



El punto de corte preoperatorio:

- EDVI del VD con un valor de 155 mL/m² (71% sensibilidad, 80% especificidad),
- ESVI del VD de 120 ml/m² (sensibilidad del 90,3 %, 70% de especificidad),
- Duración del QRS preoperatorio de 121 ms (35,5 % de sensibilidad, 100 % de especificidad)

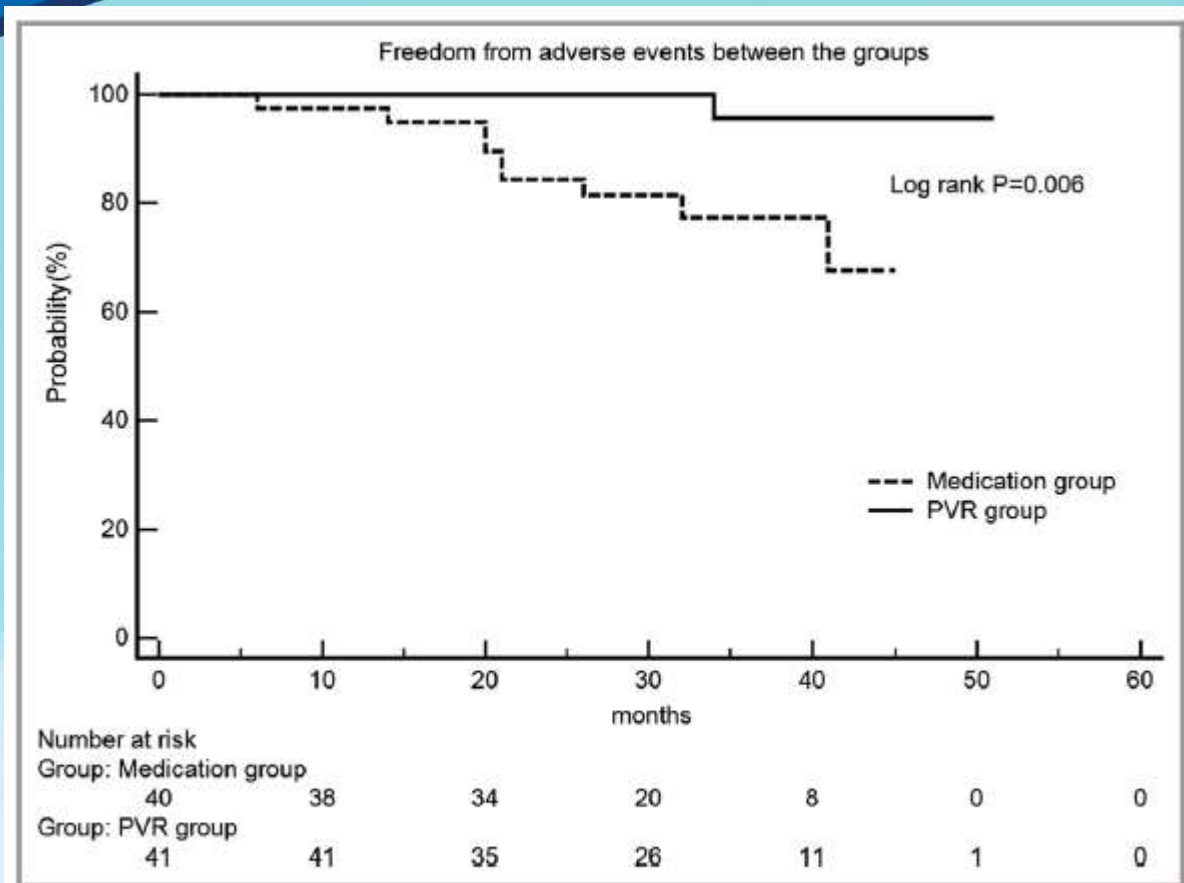


Figure 1. Freedom from adverse events between groups. Patients in the PVR group had a lower adverse events rate (log rank test, $P=0.006$). PVR indicates pulmonary valve replacement.

- ✓ Es beneficioso el recambio valvular Pulmonar en pacientes asintomáticos con POT T4F con moderada o importante regurgitación valvular pulmonar sobre el tamaño y la función del VD.

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- Muchas Gracias...!

