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Cuando cerrar por vía percutánea una CIA desafiante

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Cardiólogo Pediatra Intervencionista



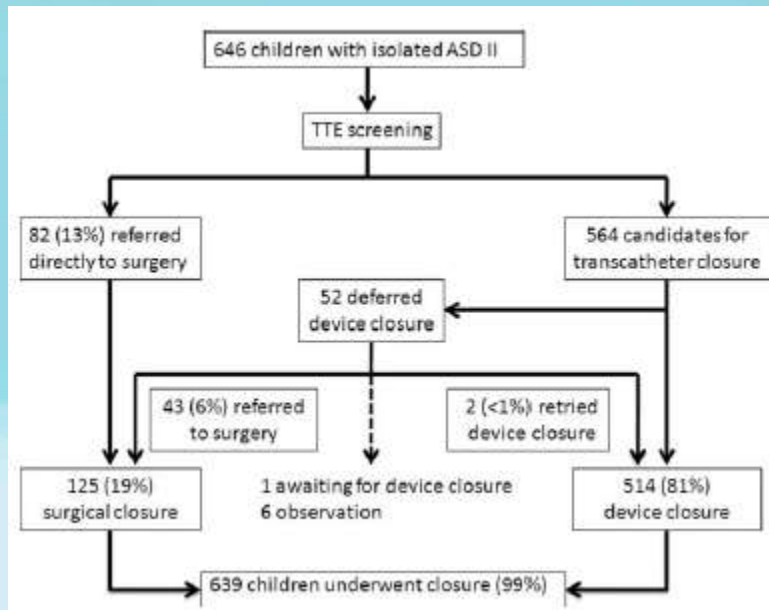


TABLE III. Indications for Direct Referral to Surgery (n = 82)

	n (%)
Defect too large	40 (49%)
Diameter >30 mm	5
Weight <15 kg	29
Age <3 years	20
Deficient rim	30 (37%)
IVC rim	9
Posterior rim	7
IVC and posterior rim	6
Aortic and superior rim	3
>3 rims	5
Multiple defects	3 (4%)
Aneurysmal IAS	2 (2%)
Other:	7 (8%)
Multiple anomalies	2
Social problem	1
Unknown	4

IVC, inferior vena cava; IAS, interatrial septum.

Characteristics of Secundum Atrial Septal Defects Not Percutaneously Closed. Catheterization and Cardiovascular Interventions (2014). Lee Benson, et al.

TABLE IV. Indications for Catheter Deferral (n = 52)

	n (%)
Deficient rim(s)	19 (36%)
IVC rim	8
Posterior rim	2
IVC and posterior rim	3
Aortic and superior rim	1
>3 rims deficient	5
Too large a device required	11 (21%)
Diameter >40 mm	2 (4%)
Multiple defects	5 (10%)
Aneurysmal IAS	1 (2%)
Defect too small	6 (11%)
Sinus venosus defect(newly diagnosed)	2 (4%)
Malplaced device positioning	2 (4%)
ECG changes	4 (8%)
CAVB	2
Bradycardiac junctional rhythm	1
ST-wave changes	1

IVC, inferior vena cava; IAS, interatrial septum; ECG, electrocardiogram; CAVB, complete atrioventricular block.

TABLE II. Defect Diameter to Weight Ratio

	Surgical closure vs.	Device closure	P-value
Total ^a	1.39 ± 0.55 (n = 124) (0.24–3.69)	0.73 ± 0.35 (n = 514) (0.07–2.02)	<0.0001 ^b
<15 kg ^a	1.80 ± 0.49 (n = 50) (1.08–3.69)	1.21 ± 0.29 (n = 46) (0.64–2.02)	<0.0001 ^b
15 kg < 20 kg ^a	1.39 ± 0.28 (n = 37) (0.74–2.01)	0.98 ± 0.24 (n = 159) (0.31–1.60)	<0.0001 ^b

^aMean ± SD (range).

Characteristics of Secundum Atrial Septal Defects Not

Percutaneously Closed . Catheterization and Cardiovascular Interventions (2014). Lee Benson, et al.

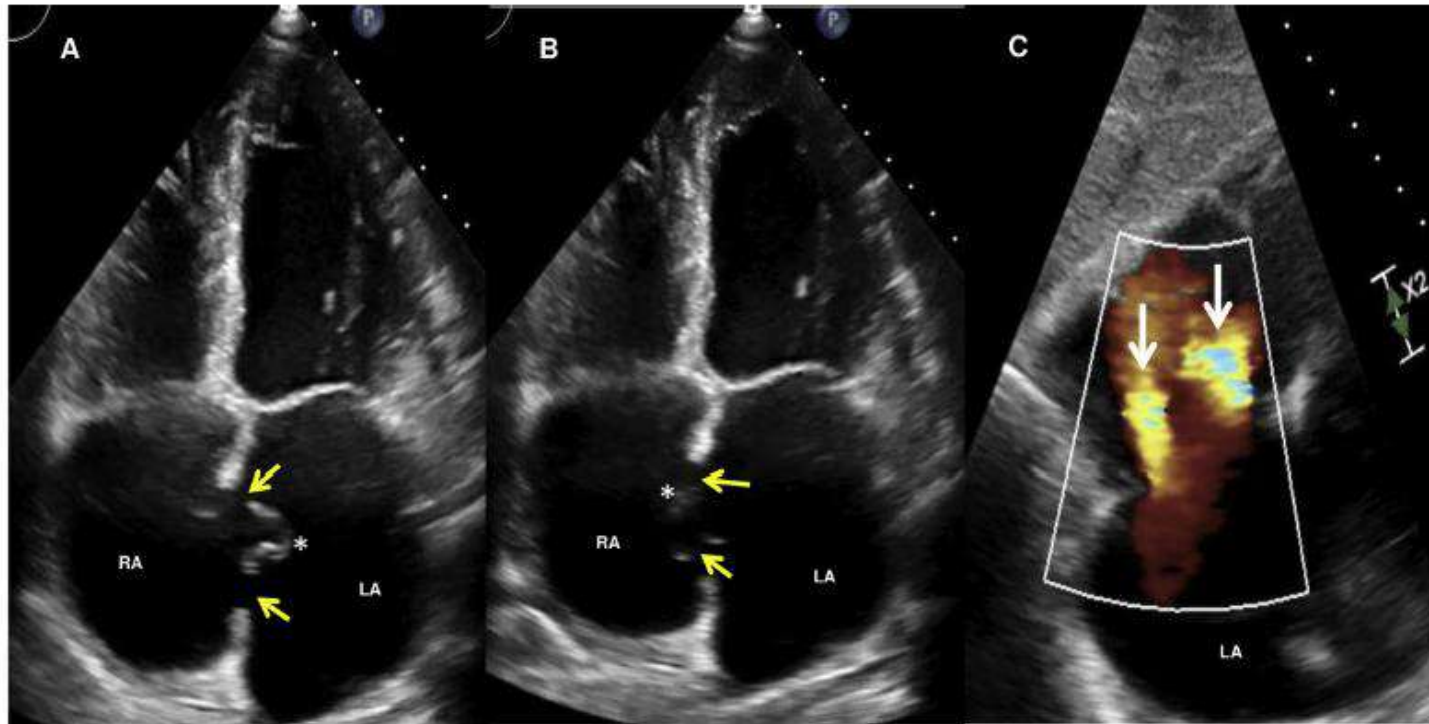
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- Pero cuales podemos definir como CIA Compleja y desafiante...??

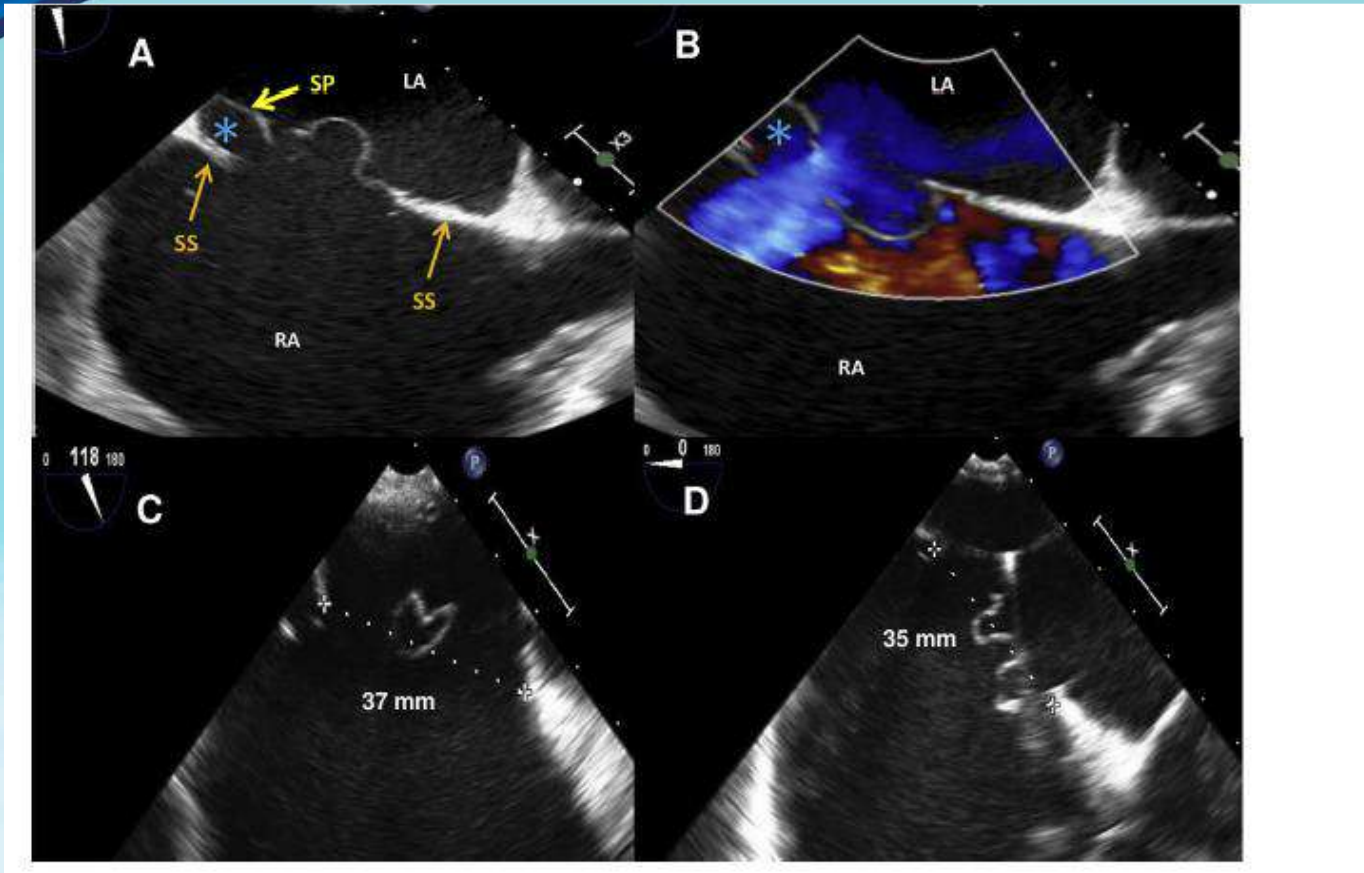
- El cierre de formas complejas de CIA representa aproximadamente el 30% de los defectos, ya que pueden tener una anatomía compleja.

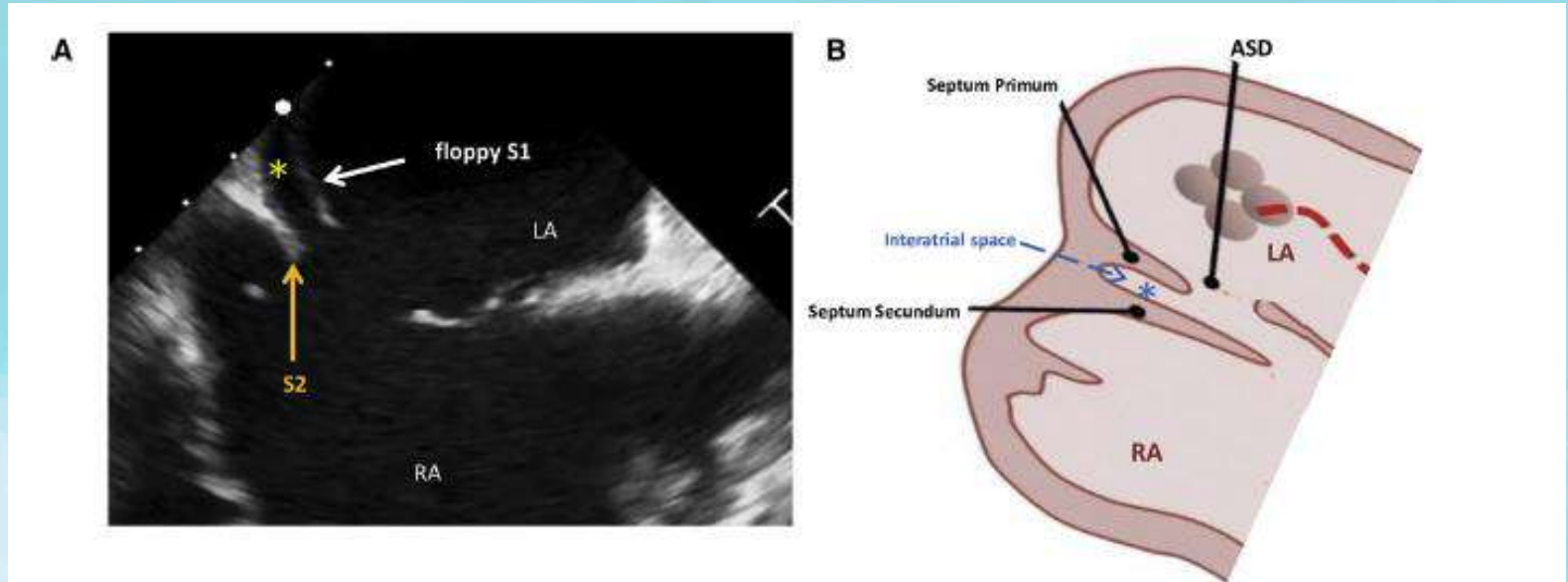
Transcatheter Closure of Complex Atrial Septal Defects. P. Syamasundar Rao. Echocardiography 2014;31:1173–1176)

- ✓ los defectos grandes(>26 mm),
- ✓ bordes deficientes (particularmente borde inferior),
- ✓ aneurisma del tabique interauricular
- ✓ defectos múltiples o fenestrados,
- ✓ Septum de mal alineamiento,
- ✓ Septum primum mal adherido,
- ✓ CIA elíptica
- ✓ CIA elíptica+ aneurisma
- ✓ CIA + válvula de Eustaquio redundante.

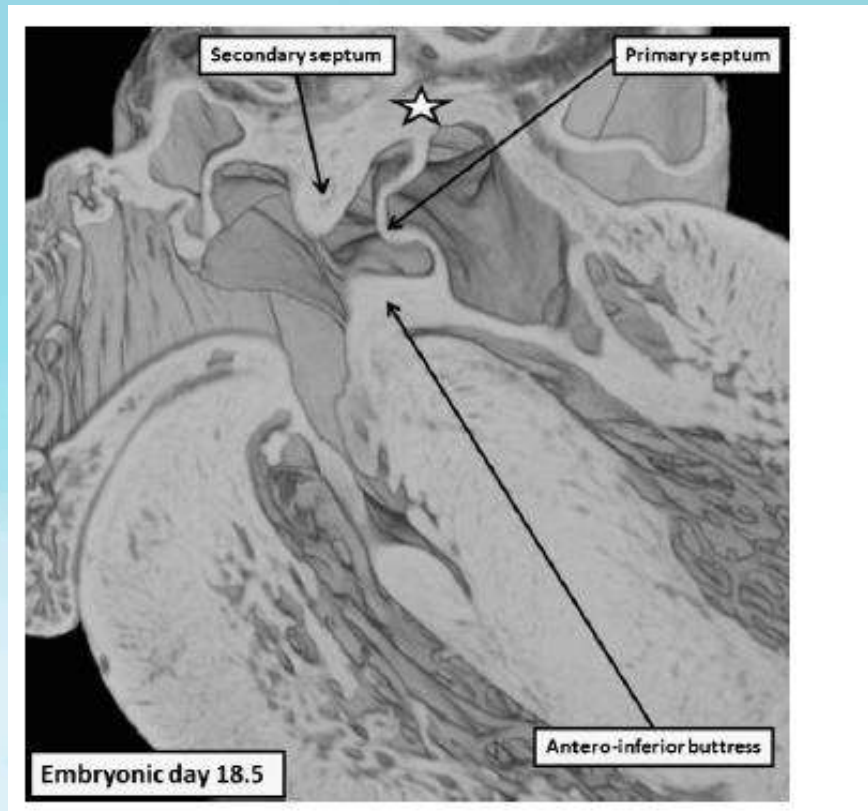


Transcatheter Closure of Secundum Atrial Septal Defect with Large Multifenestrated Septum Primum Aneurysm and Double Atrial Septum: A Challenging Transesophageal Echocardiography–Guided Procedure. CASE: Cardiovascular Imaging Case Reports June 2021. Onorato, et al.



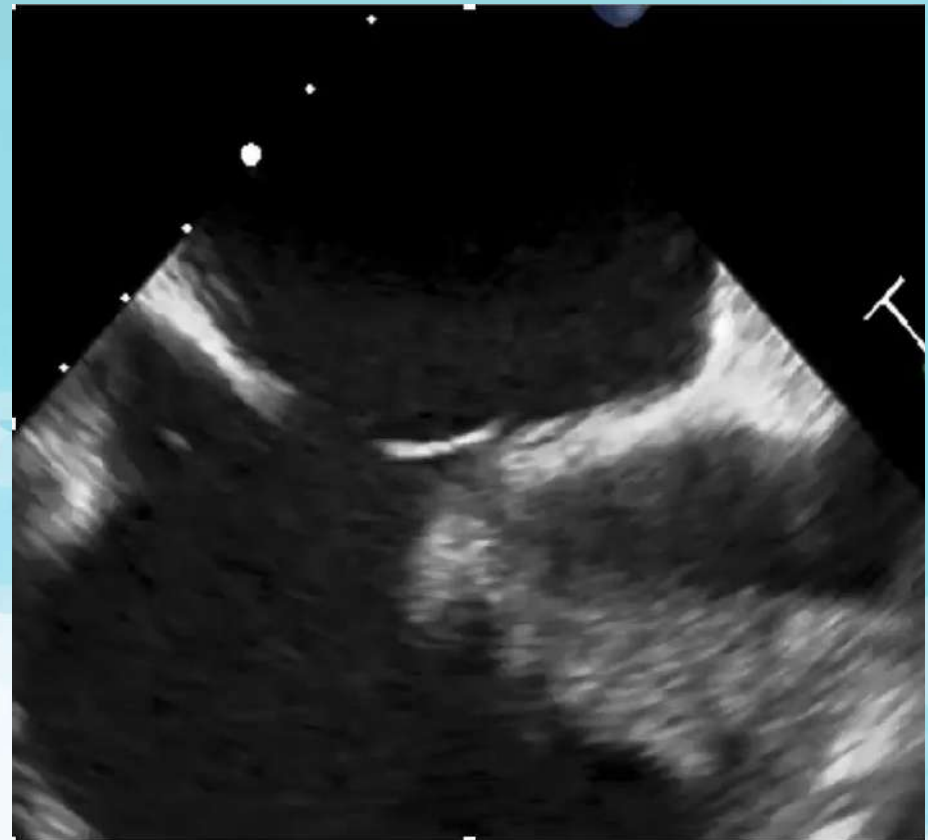


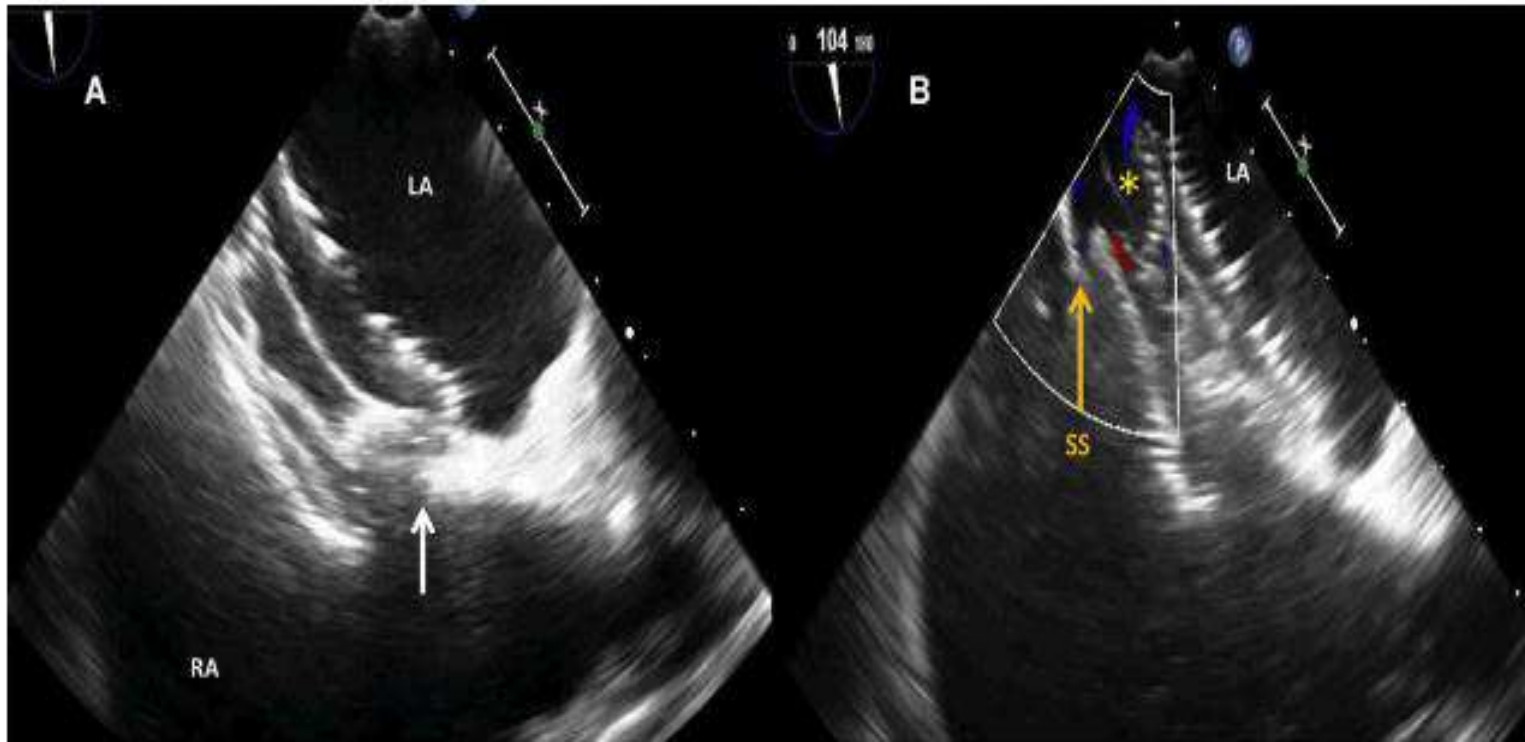
Doble septum inter atrial?



Defects in the Oval Fossa: Morphologic Variations and Impact on Transcatheter Closure. Journal of the American Society of Echocardiography February 2013. Robert H. Anderson.

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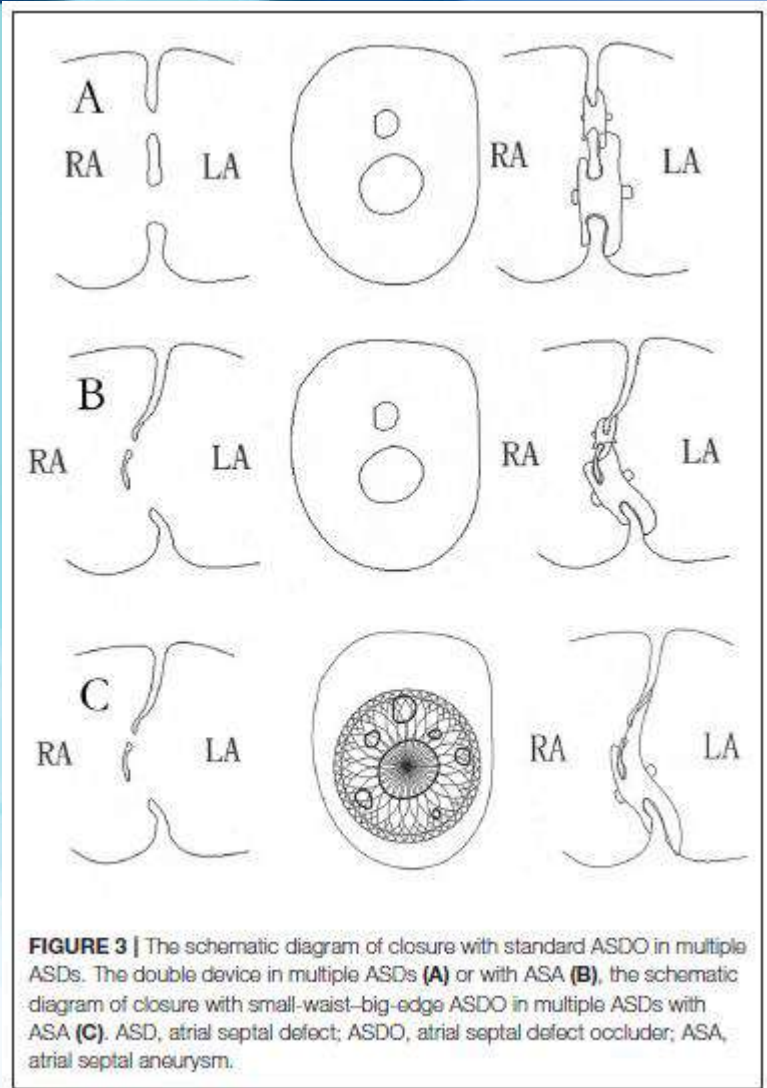
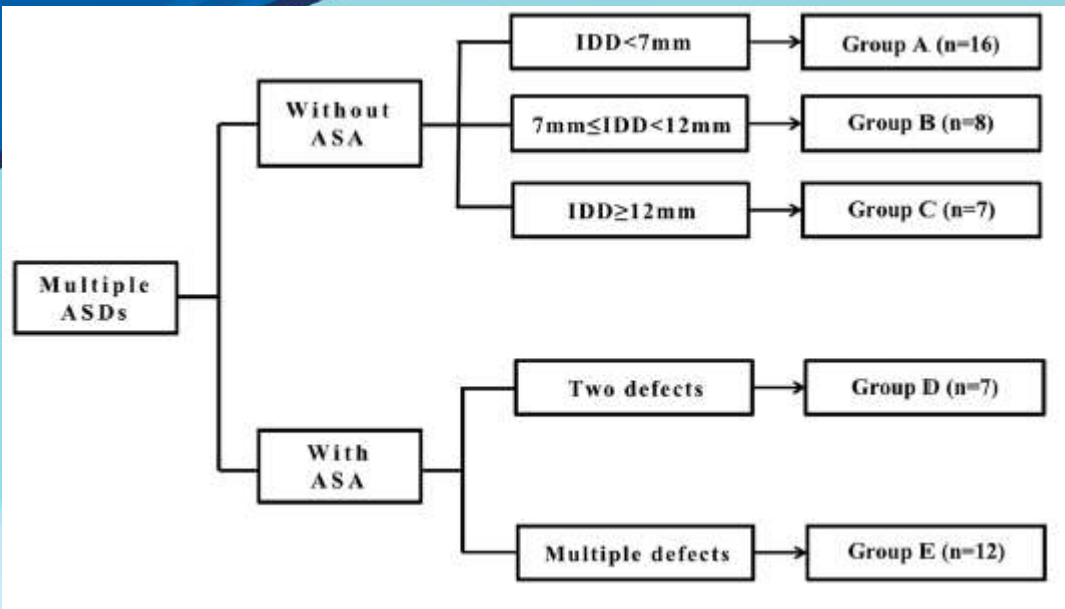


FIGURE 3 | The schematic diagram of closure with standard ASDO in multiple ASDs. The double device in multiple ASDs (A) or with ASA (B), the schematic diagram of closure with small-waist-big-edge ASDO in multiple ASDs with ASA (C). ASD, atrial septal defect; ASDO, atrial septal defect occluder; ASA, atrial septal aneurysm.

Individualized Experience With Percutaneous Transcatheter Closure of Multiple Atrial Septal Defects: A Single-Center Study. February 2021 | Volume 8 | Article 628322. Wang et al.

- Cómo definimos un aneurisma del septo interatrial??????
 - Ancho de la base del aneurisma es más de 15 mm;
 - Excursión de 10 mm en el atrio o;
 - La suma de excursiones bilaterales de >10 mm

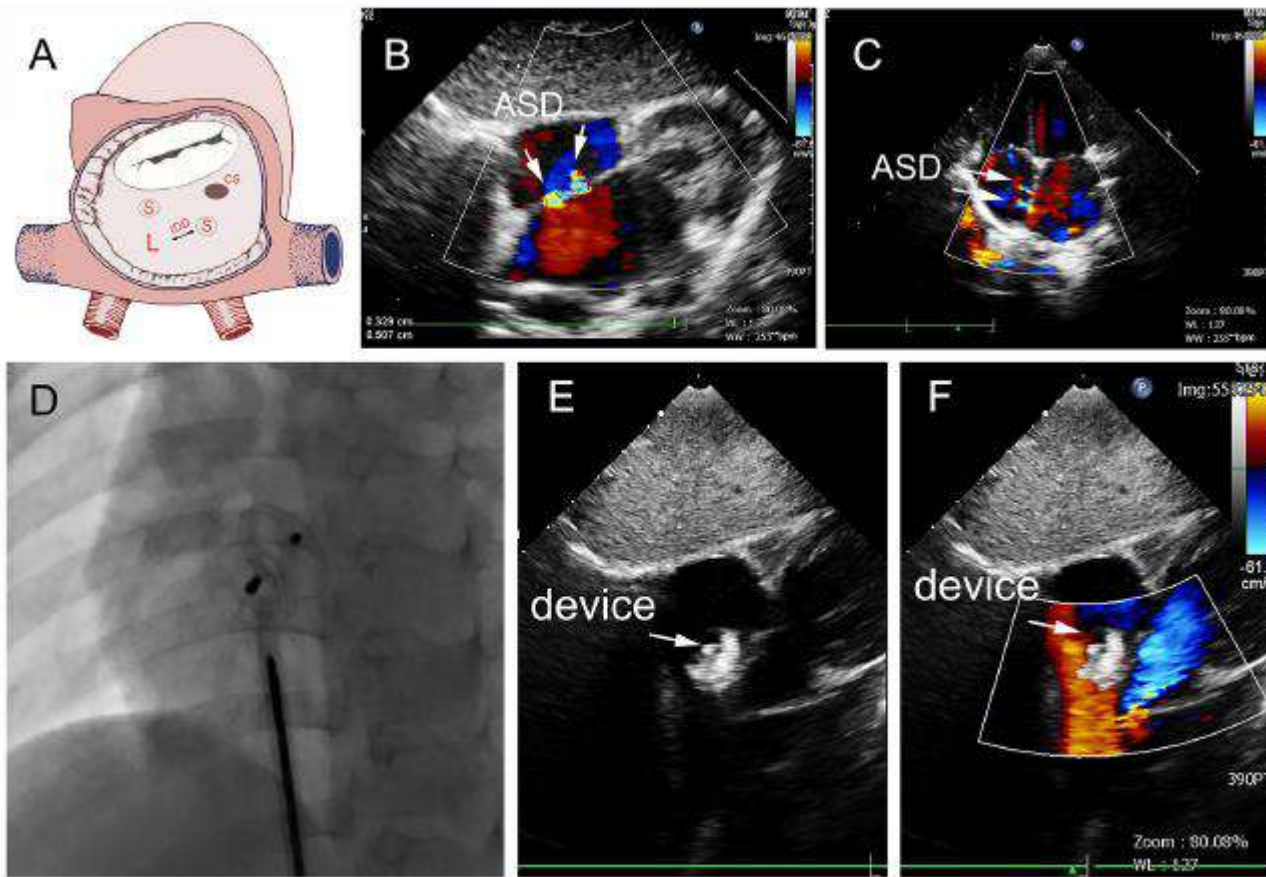


FIGURE 4 | Group A a 29-month-old boy had double adjacent defects, TTE showed the defects were 4 mm and 1.8 mm, the distance of the defects was 3 mm (A-C). In the operation, the 10mm MemoPart ASDO implanted the larger defect (D), and no RS (E,F) and any complication happened from immediate postoperation to last follow-up. ASD, atrial septal defect; IDD, inter-defects distance; CS, coronary sinus; S, small ASD; L, large ASD.

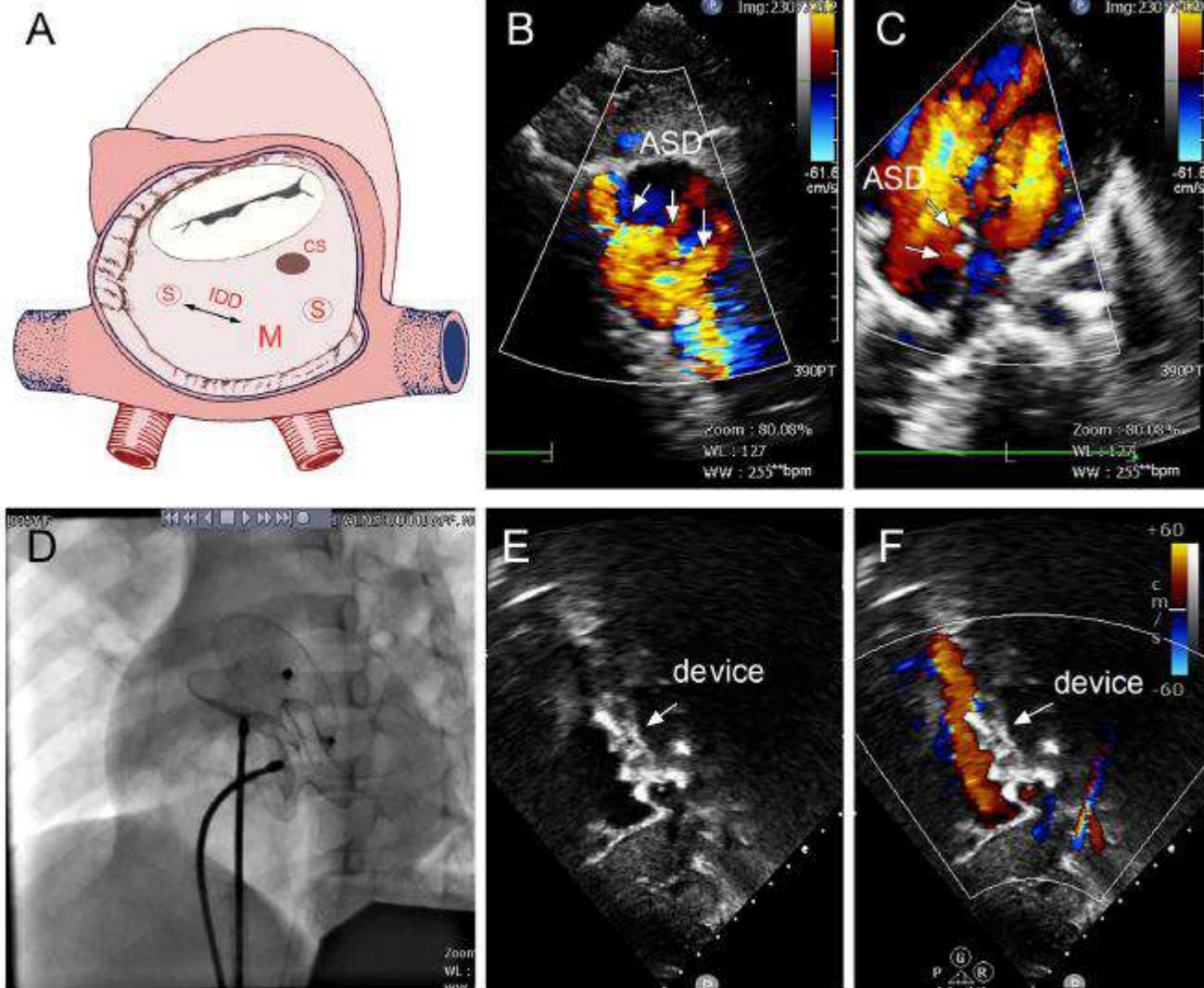


FIGURE 6 | Group C: a 5-year-old girl; the TTE showed three defects (15, 2, and 5 mm); the distance between the largest and smallest hole was 14 mm (A–C). The 16- and 22-mm MemoPart ASDOs were implanted (D), and no residual shunt (E,F) and any complication happened from immediate postoperation last follow-up. ASD, atrial septal defect; IDD, interdefect distance; CS, coronary sinus; S, small ASD; M, moderate ASD.

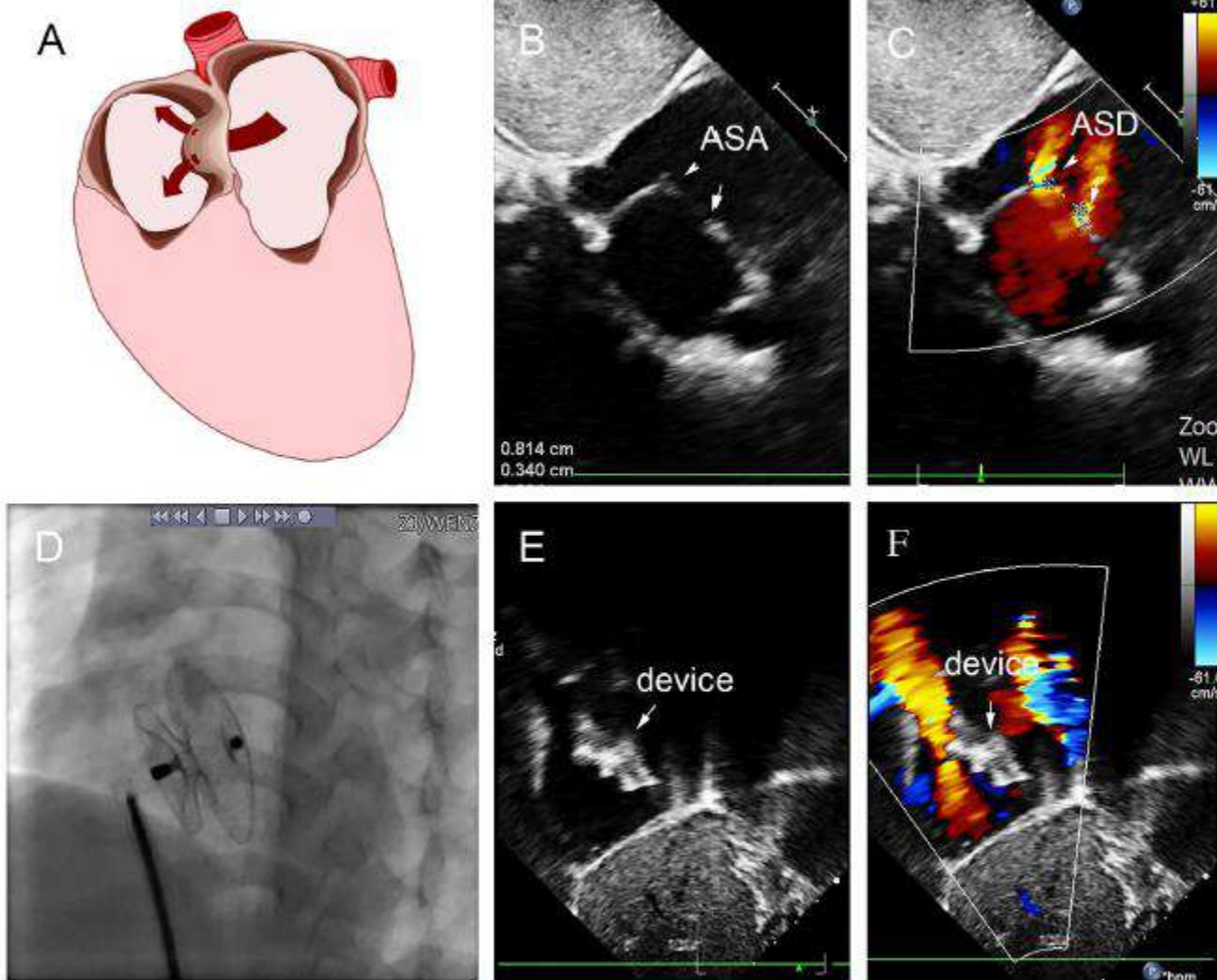


FIGURE 7 | Group D: a 2-year-old girl had double defect (A); the diameters of defects were 2.8 and 3.4 mm, and the diameter of aneurysm base was 10 mm (B,C). We chose an 8 mm small-waist-big-edge ASDO (D) had no residual shunt (E,F) and any complication at the immediate and last follow-up. ASD, atrial septal defect; ASA, atrial septal aneurysm.

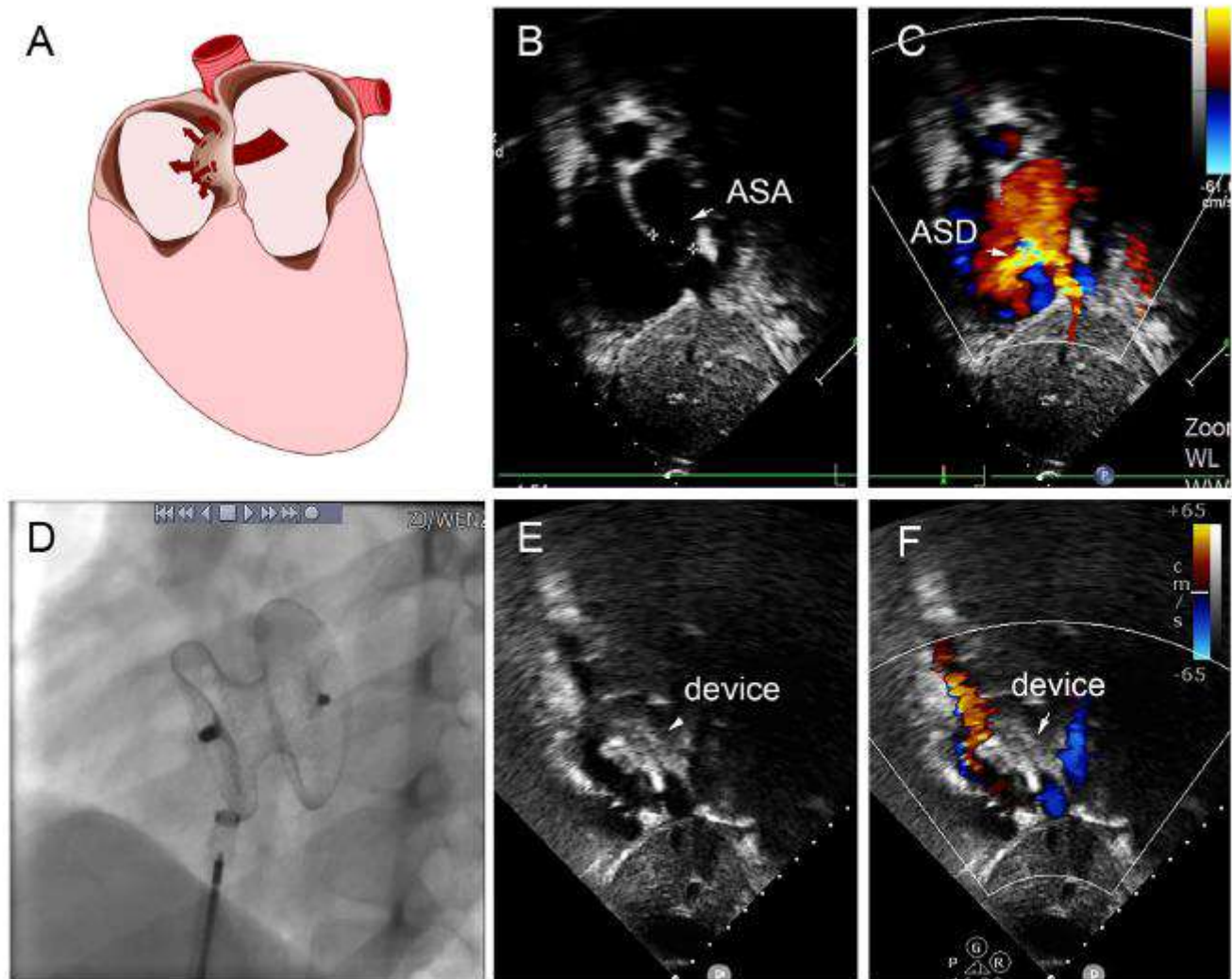
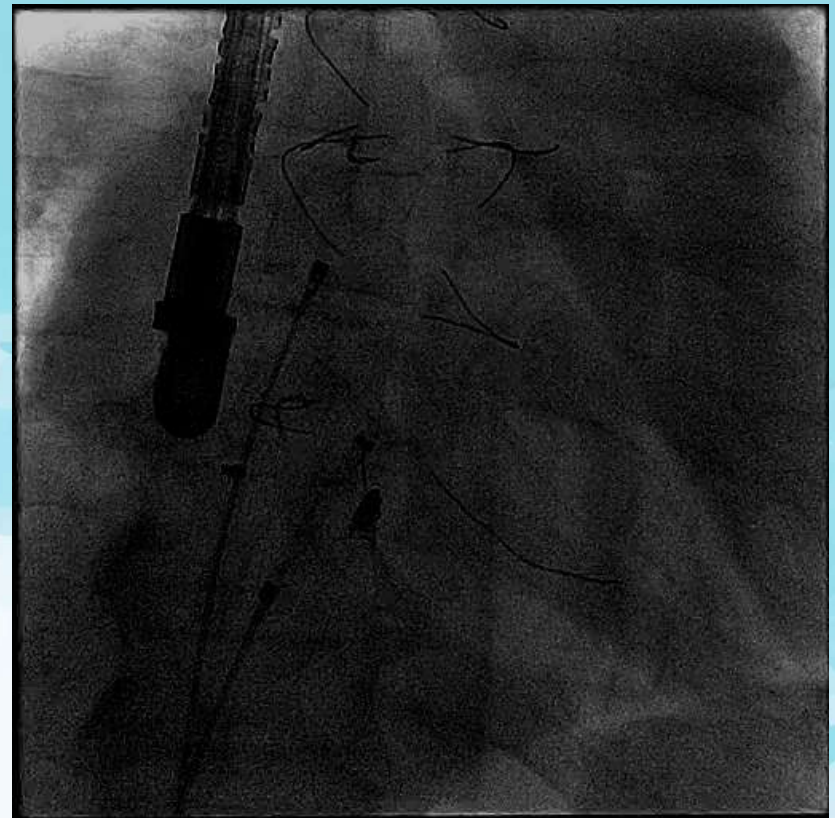
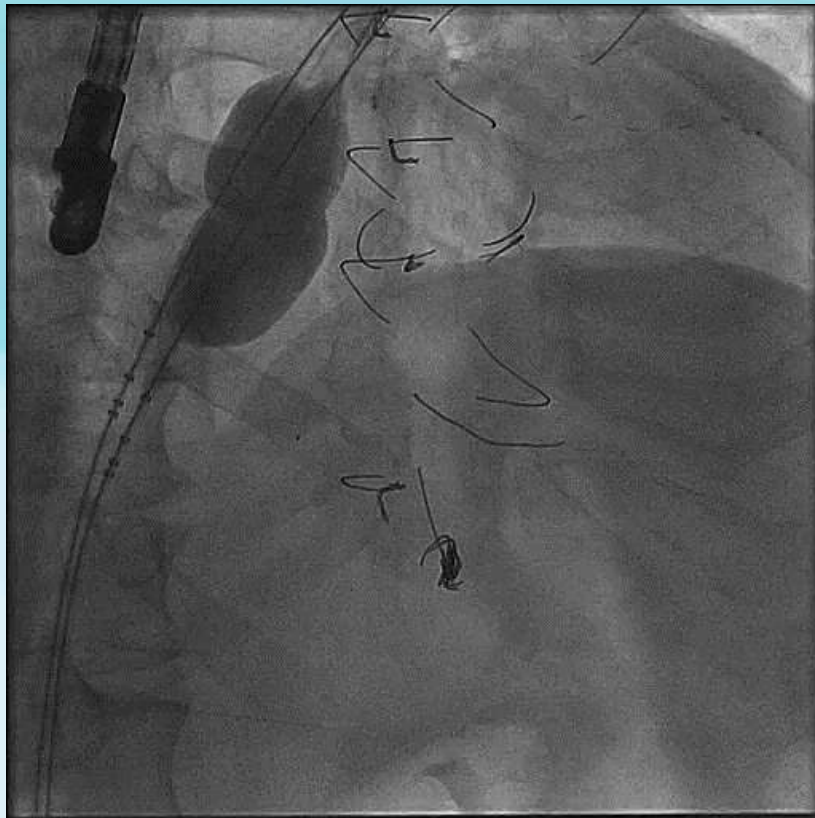


FIGURE 8 | Group E a 8-year-old boy, TTE showed the diameter of aneurysm base was 12 mm, with three defects in the aneurysm (8.8 mm, 2.5 mm, 2.4 mm) (A-C). In the operation, 22 mm MemoPart ASDO implanted the larger defect (D), and no residual shunt (E,F) and any complication happened from immediate postoperation to last follow-up. ASD, atrial septal defect; ASA, atrial septal aneurysm.

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- Muchas Gracias...!!

