



Wockhardt Hospitals Surat

Opp .Chowpati, Athwalines , Surat - 395001

Appointment no: 0261-6694444

Case study-VSD Closure by Dr Kalpesh Malik

Introduction:-

This is a case of small baby 11 yrs old female, Bady Vaishnavi Shyam Shinde resided at Silvasa. She came with a complaint of recurrent RTI in K/C/O congenital VSD. She was admitted at Adventist Wockhardt Hospital, Surat at 11th February, 2017 under Dr. Snehal Patel (Cardiologist). The cardiologist advised for a 2D Echo. The 2D Echo was suggestive of a small perimembranous inlet VSD, partially restricted by an STL aneurysm, shunting left to right, with mildly dilated LA/LV and good biventricular function.

A ventricular septal defect (VSD) is a hole or a defect in the septum that divides the two lower chambers of the heart, resulting in communication between the ventricular cavities. A VSD may occur as a primary anomaly, with or without additional major associated cardiac defects. It may also occur as a single component of a wide variety of intracardiac anomalies, including tetralogy of Fallot (TOF), complete atrioventricular (AV) canal defects, transposition of great arteries, and corrected transpositions.

An isolated VSD occurs in approximately 2-6% of every 1000 live births and accounts for more than 20% of all congenital heart diseases. After bicuspid aortic valves, VSDs are the most commonly encountered congenital heart defects.

Classification

There are 4 basic types of VSD:

1. **Membranous VSD.** This is an opening in the upper section of the ventricular septum, near the aortic and tricuspid valves. This type of VSD doesn't usually close spontaneously so surgery is often needed.
2. **Muscular VSD.** This is an opening in the muscular portion of the lower section of the ventricular septum. Many of these muscular VSDs close spontaneously and do not require surgery.
3. **Atrioventricular canal type VSD.** This VSD is associated with atrioventricular canal defect. The VSD is located next to the tricuspid and mitral valves. It requires surgical repair.
4. **Conal septal VSD.** The rarest type of VSD located in the ventricular septum just below the pulmonary valve.

Ventricular septal defects are the most commonly occurring type of congenital heart defect, accounting for about half of congenital heart disease cases.

Patient history:-

Patient was presented with following complaint

- Recurrent RTI in K/C/O Congenital VSD.
- Vital: - BP: - 100/70 mm of Hg.

RS: - Clear, AEBE. CVS: - S1S2 present, Murmur with trilled present. CNS: – Normal.

2D Echo show show :-

- small permembranous inlet VSD partially restricted by STL aneurysm shunting left to Right
- Mildly dilated LA/LV with good biventricular function.

Now two options for treatment:-

1. Surgical correction with Dacron patch.
2. VSD closed with VSD closure device.

Here is VSD is 3 – 4 mm sized and it is difficult to close by device. So that first option is most suitable as per concern of VSD size. So R/W/C to Dr. Kalpesh Malik for surgical correction of VSD was done.

Procedure:-

After giving general anesthesia and sternotomy, patient was put on CP Pump. Right Atrium was open and VSD closure was done with help of Dacron patch. This VSD Closure was crosschecked and there is no leaking found. So patient was successfully come out from CP pump and shifted to ICCU without any complication.

Post-operative management inside ICU:-

- Patient stable post operatively without any complication and patient was shifted to ward after one day of stay inside ICU.
- No any other complication seen.

Post procedure echo By Dr. Snehal Patel

- Closed VSD was seen without any shunting.
- No leaking present.
- Mild dilated LA/LV with good biventricular function.

Discharge:-

Patient was discharge uneventful without any complication 13th February, 2017 without any complication.

Follow Up:-

Patient come follow up after 7 day.

Uniqueness of CASE:-

- Only one day stay required at ICU after Surgery.
- No post-operative complication.
- Patient had discharge on 5th day of surgery.
- 2 D Echo show intact VSD patch.
- No any type of infection present.

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