



## For The First Time In Mumbai Rare Multiple Aneurysms Of Sinus Of Valsalva (ASOV) Successfully Treated At Lilavati Hospital



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by Priya Jadhav

Mumbai: In a milestone accomplishment, a team led by Dr Pavan Kumar, Cardiovascular Surgeon, Lilavati Hospital along with Dr Nitin Gokhale (Cardiologist), Dr Namrata Kothari (Cardiac anesthesiologist), successfully treated a 41-year-old female patient suffering from a heart condition called Multiple Aneurysms of Sinus of Valsalva (ASOV) for the first time in Mumbai. The patient had severe breathlessness and was diagnosed with life-threatening complications, including two large aneurysms and a completely leaking aortic valve. The complex seven-hour surgery involved the simultaneous repair of both aneurysms and the replacement of the aortic valve. The patient had a smooth postoperative recovery and is now on the path to full health.

Patient Mrs Seema Patil, a housewife from Mumbai experienced breathlessness and was admitted to a city hospital, where she was diagnosed with heart failure and received appropriate treatment. Comprehensive tests, including an echocardiogram and CT scan, revealed severe leakage in her aortic valve with some abnormal out-pouching in the aorta. However, the patient approached Lilavati Hospital for life-saving treatment.



Dr Pavan Kumar, Cardiovascular Surgeon, Lilavati Hospital said, "Upon transferring to Lilavati Hospital, advanced imaging confirmed the presence of two aneurysms: one in the Left Coronary Sinus of Valsalva (measuring 4.5 x 3.5 x 3 cm and compressing the left coronary artery) and second aneurysm in the Right Coronary Sinus of Valsalva (measuring 3.5 x 2.5 x 2.5 cm). Along with this, she had totally leaky (regurgitant) aortic valve. These findings necessitated urgent surgical intervention. Aneurysms of the Sinus of Valsalva (ASOV) are rare cardiac anomalies with a prevalence of 0.09% in the general population and 0.1%-3.5% of congenital heart defects. ASOVs are predominantly from RCS (right coronary sinus) in 70% of cases, from non-coronary sinus in 25% of cases, and rarely from the left coronary sinus. Multiple ASOVs are even rarer and only 18 such cases reported worldwide, six such cases reported in India while four such cases have been surgically treated."

Dr. Kumar added, "She underwent three complicated heart procedures simultaneously lasting seven hours of operation time. The surgery included repairing the left coronary sinus aneurysm, a highly challenging procedure due to its proximity to the left coronary artery, closing the right coronary sinus aneurysm, and replacing the aortic valve, which was severely leaking. The left ASOV procedure presented significant challenges because of the narrow margin of the left coronary ostium and the left ASOV. To enhance the gap between these two structures, a new method was employed involving the inversion of the left aortic leaflet towards the left ASOV. This innovative approach allows for a safer replacement of the aortic valve and repair of the left ASOV. The patient had a smooth post-operative recovery after the uneventful surgery. She was discharged in stable condition and will continue regular follow-ups to ensure long-term health and heart function."

Dr. Kumar Said, "We were faced with a unique challenge as multiple aneurysms are not only rare but also more complicated to manage. The left aneurysm was compressing the coronary artery, and repairing it required extreme precision. Using advanced imaging and surgical techniques, we were able to repair the aneurysms and replace the damaged valve. This was an extremely rare and complex case. Aneurysms of the Sinus of Valsalva are uncommon, and multiple ASOVs are even rarer. These aneurysms can burst at any time, causing life-threatening complications. The innovative technique we used was crucial to ensuring the safety of the coronary arteries and achieving a successful outcome. It is a proud moment for our team and a testament to the advanced care we provide at Lilavati Hospital."

"This case highlights the importance of expertise and innovation in treating rare and complex cardiac conditions. Lilavati Hospital continues to set benchmarks in advanced heart care, offering hope to patients with challenging diagnoses," Said Dr Niraj Uttamani, Chief Operating Officer at Lilavati Hospital & Research Centre, Bandra.

"I am deeply grateful to Dr. Pavan Kumar and his team at Lilavati Hospital for saving my life. They handled my rare and complicated condition with such expertise and care. Thanks to them, I am recovering well and looking forward to living a healthy life again," Said patient Mrs Seema Patil.