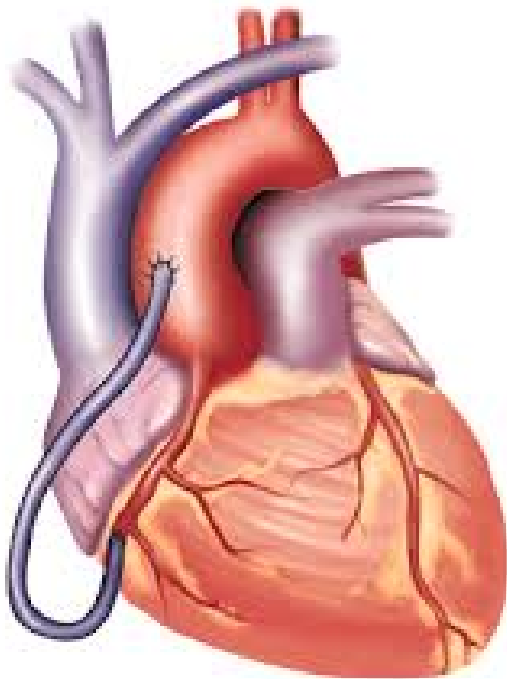


World's smallest Heart Pump used for the first time in India

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The new 'Impella Device' is the 'world's smallest heart pump', which can support a failing heart for up to 7-days and occasionally longer. The Impella Device is like a catheter and works on the principle of submersible water pump; it is as thick as a pencil and approx. 6 inches long.



Fortis Escorts Heart Institute, Centre of Excellence in Cardiac Care, achieved yet another milestone of success when a team led by Dr. Ashok Seth, Chairman, Cardiovascular Sciences, performed India's first "Protected Angioplasty and stenting procedure" with support of Impella Heart Pump on a patient suffering from life-threatening blockages, who was at extremely high risk for bypass surgery. The hospital is the first in India to offer this new life-saving treatment to patients suffering from high-risk blockages and failing heart – who are at high risk for surgery and angioplasty and often left with no options. This marks the beginning of the first "Heart Recovery Program" in India, where the device can help the patient's own diseased and weak heart to rest, recover and function on its own.

The new 'Impella Device' is the 'world's smallest heart pump', which can support a failing heart for up to 7-days and occasionally longer. The Impella Device is like a catheter and works on the principle of submersible water pump; it is as thick as a pencil and approx. 6 inches long. Unlike other devices (which are large and need surgery to implant) the Impella can be inserted into the heart without an operation percutaneously through the groin artery in the Cath Lab; it can provide blood flows of 2.5 – 3.5 litres/min.

Impella heart pump is used to help maintain stable heart function and to help ensure blood flow is maintained to critical

organs such as the brain and kidneys in cases of cardiogenic shock or during high-risk angioplasties or surgeries. Once in position, the Impella heart pump withdraws blood from the left ventricle and expels it in to the ascending aorta, the same effect that happens with the pumping motion of your heart.

Dr Ashok Seth said, "The Impella can support failing heart (cardiogenic shock) due to heart attack or myocarditis for up to 7-days or even longer till heart recovery occurs. It can also be used to support the heart in cases of high-risk angioplasties (Protected PCI) in patients with poor heart function and where surgery is considered too risky. It has been proven to support the heart to improve the safety of the procedure and improve outcomes. When the procedure is over, or the heart recovery occurs, the device can just be pulled out and removed as it is like a catheter. It is approved in and has been used in USA and Europe for the last few years and has been introduced into India now."

The device was used for the first time to treat an 86-year old gentleman who was admitted to Fortis Escorts Heart Institute with severe recurrent chest pains over a week and impending heart attack. An angiogram revealed all his arteries were more than 90% blocked with very hard, calcium deposited life-threatening blockages. He had a prohibitive risk for surgery so angioplasty was performed as a lifesaving procedure under the support of Impella heart support. The patient had Rotablator drilling performed on all three arteries to remove the calcium followed by implantation of five stents in a procedure lasting for 2½ hours.

The heart was supported throughout on the Impella pump to maintain stable pressure and perfusion to brain and kidneys. The patient remained conscious, stable and complication free throughout the procedure. The patient continued the recovery and was transferred to the CCU and was gradually weaned off the pump, which was removed after 5-hours. After the patient stabilized and was in CCU, the Impella pump was removed after 5-hours. The 86-year old gentleman is now well and walking around two days later.

Dr. Ashok Seth also added: The device supported the heart admirably to keep the patient stable throughout the very complex angioplasty procedure and afterwards for recovery. It was an extreme high risk angioplasty which was successfully performed without any complications with a good supply of blood being maintained to the kidneys and brain. It provides hope for numerous patients who have a heart attack, multiple blockages and failing heart who are considered the too high risk for treatment with angioplasty and surgery. They can now be treated with greater safety using the Impella Device.

It would not have been impossible to do the procedure with safety without the support of Impella device. This landmark is the start of the first "Heart Recovery Program" in the country where a patient with weak hearts and cardiogenic shock can be supported at angioplasty or in CCU to allow the heart to recover by implanting a miniature catheter-based heart pump, without surgery. The device can also be used to transport a patient in shock to tertiary centres where advanced treatment can be instituted to help survival.

Dr Kousar Ali Shah, Zonal Director, FEHI, "Fortis Escorts continues to be a trendsetter in using the most advanced technology in the clinical world and lives up to its reputation of being the first in so many such value additions to the world of healthcare! And congratulations to Dr Ashok Seth for once again setting an example by leading from the front and using the Impella device on this 86 years old gentleman who has got a new lease of life with this advanced device. It feels great to be associated with this institute that continues to write new history!"