



Mumbai: A team headed by Dr Chirag Patel, Orthopedic Surgeon, Apollo Spectra

Mumbai successfully performed a bilateral total knee replacement surgery on a 62-year-old Surat man suffering from osteoarthritis of both the knees and inability to walk during pandemic. The patient had severe comorbidities like morbid obesity, hypertension, diabetes mellitus, and chronic obstructive pulmonary disease (COPD). The patient has resumed his daily routine now and his quality of life has improved significantly.

Sunil Jariwala, an auto rickshaw driver suffered from knee pain owing to his age, which was aggravated by his obesity and led to gradual reduction in mobility since the past 2-3 years. The patient would take frequent breaks from driving as the knee pain gradually became unbearable. With the Covid lockdown announced in India, he had to stay home to minimize the risk of

contracting the infection, leading to a sedentary lifestyle. With his inactive lifestyle and deteriorating health, the patient who was already on the heavier side gained oodles of weight, couldn't walk, and was almost wheelchair bound. The patient tried all forms of conservative treatment such as pain killer medications and physiotherapy but nothing helped him. Mr. Jariwala was referred to Dr. Chirag Patel at Apollo Spectra hospital by one of his close relatives who had been treated successfully by Dr. Patel. After initial exchanges via telephonic consultation, the patient travelled to Mumbai once the lockdown eased.

Dr Chirag Patel, Orthopedic Surgeon, Apollo Spectra Mumbai said, "When the patient came to see me on November 5, 2020, he was completely immobile. He weighed 135 kgs, with a BMI > 50 and was found to have bilateral osteoarthritis of the knee. He was unable to bend the knees, stand, climb stairs or perform activities of daily routine. He had given up occupational activity and his radiographs showed severe osteoarthritis of the knees with bone-on-bone contact between the femur (thigh bone) and the tibia (shin/leg bone)."

After counseling the patient and the family, he was scheduled to undergo staged bilateral total knee replacement surgery. His physical condition was optimized before the surgery with help of medications.

Dr Patel added, "Total knee replacement surgery is a surgical procedure to resurface the damaged ends of thigh and the shin bones. Staging (performing two surgeries a few weeks apart) the knee replacements surgeries in severely comorbid patients decreases the risks associated with the surgery for such high risk patients, helps prevent any serious postoperative complications and aids in faster recovery."

The surgery is performed by making a cut on the front of the knee, separating the muscles in front of the knee followed by resecting the ends of the damaged bones and reshaping them to match the knee replacement prosthesis. Metal parts are used to cap the ends of the thigh and the shin (leg) bones that form the knee joint, along with the kneecap. A medical grade plastic is inserted in between the capped metal ends. The prosthesis is made of an alloy of cobalt-chromium and titanium. The medical grade plastic is made of highly cross-linked polyethylene which is highly resistant to wear and tear even in obese patients.

Knee replacement allows pain free movement of the knee joint and thereby increases the patient's ability to pursue their activities without any hindrance. Each surgery lasts approximately two hours.

"His left knee was operated upon in December 2020 and the right knee was operated on February 3, 2021. The patient recovered uneventfully after each of the knee replacements and was discharged from the hospital on the 4th day after surgery in spite of his comorbidities on both the occasions."

Dr Patel added, "Operative challenges in performing a knee replacement in severely obese patients include adequate surgical exposure to perform the operation accurately, optimal bone resection, and perfect ligament balancing to provide solid stability allowing unhindered post-

operative mobilization. Effective postoperative pain management was also a big challenge in this patient due to his comorbidities and obesity."

Post-operative complications such as deep vein thrombosis and pulmonary embolism were taken care of with the help of medications and physiotherapy. The patient was mobilised within 24 hours of the surgery on both occasions. Aggressive rehabilitation protocols were followed for an early discharge from the hospital given the current covid scenario.

"Postoperative advice included strict adherence to rehabilitation protocol for regaining muscle strength and range of motion, regular mobilization via regular physiotherapy sessions and diet modification for weight loss. Eight weeks after the second knee replacement, he is back on his feet and has resumed driving his auto rickshaw. Regular physical activities post bilateral total knee replacement along with diet modifications has helped him in approximately 10 kg weight reduction, Mr. Jariwala currently weighs 124 kgs, post second surgery. The overall need for medications to control his hypertension and diabetes mellitus has decreased significantly," said Dr Patel.

"Earlier, I ignored my knee pain ruling it as a common health ailment due to age. The matter became worse when I found it difficult to perform my job. I couldn't drive an auto rickshaw properly and that led to financial instability. I was worried as I had to take care of my family. During the pandemic, we were required to stay home. That is when things became ugly. I piled up excess kilos, couldn't move, was unable to help support my family, constantly required assistance, and it led to frustration. I was depressed seeing myself helpless. I thought I will never be able to walk again or drive an auto rickshaw that was my source of income." said patient Sunil Jariwala.

"Tables turned after I met Dr Patel and after undergoing knee replacement surgeries, I am now able to move freely again. I thank the doctor because of whom I have commenced all daily livelihood activities like auto rickshaw driving, 2-wheeler riding, and routine household chores. I have got a fresh lease of life amid the pandemic. I follow the diet and exercise regime, and am happy to live life the way I want to," concluded Jariwala.