

Dr Sanjeev Jain performs arguably the first Uncemented Knee Replacement in India

On 26th April, Dr Sanjeev Jain at Dr L H Hiranandani Hospital performed arguably India's first uncemented total knee replacement. This young 48 years old female was suffering from advanced degenerative osteoarthritis of knee for 7 years. She had tried out all modalities of treatment and nothing worked for her. Longevity of knee implant is the main issue in younger patient. Uncemented technology promises to play a role here.

Dictum is that Total knee replacement is a surgery usually performed in a patient suffering from age related degenerative arthritis after age of 60 to 65 years. But time has changed and in modern era one can have patient suffering from chronic disabling pain in knees with far advanced degenerative osteoarthritis at much younger age of even 40 years. This is mainly due to change in life style, overweight and over loading of joints, repetitive sports injuries at younger age, lack of physical exercise and early hormonal changes especially in females.

Why one should be worried about having advanced osteoarthritis of knees at younger age? In my philosophy everyone has right to live pain free quality of life at any age and perform and enjoy every bit to full extent. There are varieties of methods available to treat arthritis in younger age. For example these procedure are Arthroscopic debridement of knee [Cleaning of Joint], high tibial osteotomy [cutting the bone below the knee and changing the angle] and uni-compartment knee replacement [changing half the knee joint]. These procedures work in early moderate stage of osteoarthritis when disease has involved only inner or one compartment of knee. In a patient with advanced stage these methods will not work. So then what is the answer for advanced stage of arthritis in young patient?

Undoubtedly total knee replacement is the solution for advanced stage of osteoarthritis of knee. Main concern in young patient is longevity of procedure and implant. None of the traditional total knee implant has longevity of 15 years or more. With this factor in mind none of them want to have this surgery at younger age and doctors usually ask them to carry on as long as they can. At Dr L H Hiranandani Hospital, Dr Sanjeev Jain's approach to treat these patients would be different. There are patient with high demand activities with increased life expectancy and expectations. They are in their highest productive time of their life between 40 to 60 years of age. Many a times, whole family depends on them for financial support. One cannot be allowed to suffer and sit at home.

Young patient with advanced arthritis cannot be left alone to carry on as long as they can to have total knee replacement. Simply this is not possible due to constant pain and problem in day-to-day activities of their life. All other activities could be painful like going to professional work, social outings, and sports activities etc. So in my opinion these younger patients with advanced osteoarthritis should undergo total knee replacement surgery. Keeping this philosophy in mind Dr Sanjeev Jain has done many total knee replacement in younger patients. Now they all are enjoying their life.

The failure in knee replacement at any age is due to wear out of plastic between the articular surfaces of two components of knee implant or prosthesis. Life expectancy of conventional older implant has been 15 years. If younger patient has to undergo knee replacement this material should have better longevity. Fortunately with changing technology we also have better material available to enhanced longevity of total knee replacement material. There is newer material like Oxinium is available to use. This brings down wear rate of plastic to 90%, hence increases longevity. There is another design known as Rotating platform knee system.

This also has low wear rate as compare to other conventional designs. One can add computer-

assisted surgery [CAS], which helps in more accuracy and precision of doing total knee replacement. This accuracy and precision for a well aligned and balance knee is the key for long-term success. Hence; CAS along with modern implant will achieve success and result with longevity. Over and above if these newer implant has uncemented coating then longevity improves to large extent.