

How Can Robots Assist With a Kidney Transplant?

The UAE broke new medical ground again last month, as the Cleveland Clinic in Abu Dhabi witnessed the first robot-assisted kidney surgeries in the country's history. The futuristic operations took place in late October to facilitate transplants for three Emirati patients with end-stage renal illness.

The milestone was achieved with the support of American experts in the field from the Cleveland Clinic in the USA. By enlisting the help of a robotic assistant, the Clinic is able to provide a new option for those suffering from the disease which offers a wide range of benefits, including less discomfort during the procedure and preferable outcomes after the fact.

A landmark operation

The robot-assisted kidney transplants were the first time that such an operation had been carried out in the UAE and marks a significant landmark in healthcare for the wider Arab Gulf region. The Cleveland Clinic is the first (and to date, only) medical institution in the country capable of offering multi-organ transplants and the recent breakthrough means it now has another exclusive treatment to give patients.

The surgery was carried out by a team of dedicated specialists in both the UAE and the USA. The Cleveland Clinic Abu Dhabi's Dr Waleed Hassen and Dr Bashir Sankari, department chair of urology and institute chair of the surgical subspecialties unit, respectively. Meanwhile, their efforts were supported by Dr Mohamed Eltemamy (lead robotic kidney transplant surgeon) and Dr Georges-Pascal Haber (enterprise chair of urology) at Cleveland Clinic in the States.

The procedure is conducted using specialised instruments attached to robotic arms, which are controlled remotely by a surgeon using a highly advanced console. In this way, the robot is able to copy the movements of the surgeon with incredible precision and can be carried out in real time.

A whole host of benefits

By narrowing the margin of human error, the robot-assisted surgery can minimise the invasiveness of the operation and incur a smaller incision site. This, in turn, can reduce pain, result in less blood loss and mean less scarring. As well as making for a more pleasant operating experience, it can also have tangible ramifications later for the patient, as well.

For example, it has been demonstrated that operations conducted with the help of a robot are less susceptible to infection and generally heal more quickly than those carried out by humans alone. All in all, it results in a much better experience and overall outcome for the patient, which is why the Cleveland Clinic Abu Dhabi is so happy to add the operation to its list of available treatments.

“The adoption of robot-assisted kidney transplantation reaffirms our position as an innovator in healthcare, elevating the overall standard of medical practice both locally and in the wider region,” [explained Dr Sankari](#). “This is a promising option for patients with end-stage kidney disease and brings new opportunities for personalised care.”