Robotic assisted kidney transplantation: A risk or benefit for the recipient

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Since the beginning of robot-assisted kidney Transplantation (RAKTX) by Dr. Mani Menon this method is more in coming. First in the US and in recent years also in Europe. To date, approximately 60 live donations to transplant centers in Barcelona Spain, Toulouse France and the University of Homburg (Germany) and the University of Halle (Germany) are carried out by robotic assisted technique successfully. We will report from the results of the first 11 robotic assisted kidney transplantations at the University of Halle. Germany.

Standardly the kidney donation was performed laparoscopically hand assisted. The decision which kidney was used for the donation was established by the function and vessel abnormalities.

The robotic-assisted transplantation was routinely performed on the right side for primary transplantations, or even on the left side for second transplantations. We collected data from the donor, the recipient, immunological risks, operation time, blood lose, complications, the kidney function after Transplantation, pain, rejections and inflammation markers.

Our results show that there are no higher risks of rejections or intraoperative complications for the RAKTX. The operation time is about 35% longer as the open surgery, but there is less blood looses and less pain syndromes afterwards. The ischemic time is about 25% longer for the robotic Transplantation. The inflammatory markers are less than for open surgery and even the hospital stay is shorter. After RAKTX 80% of the recipients shows a polyuria.

After the first RAKTX in 2016 our Center performed till now 11 RAKTX. We can confirm that this method is save for centers with experience in robotic and transplant surgery. There is no higher risk for complications as for the open surgery. But because of the minimal inversivity, there are less inflammatory markers. These fact caused less pain for the recipient, a shorter stay in Hospital and, that’s the main thing, less risk of rejection.