Robotic-Assisted Kidney Transplant Tool

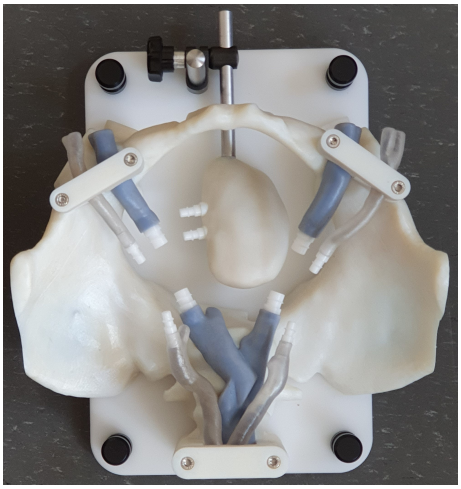
Training Model for robotic-assisted kidney transplant (RAKT)

Category

Training Materials

Anatomical Models

View online



Developed by Ioannis Loukkopoulos and colleagues at Guy's and St Thomas' NHS Foundation Trust, the RAKT simulator enables sage training for vascular anastomosis, a key step in robotic kidney transplant operations. The model acts as a scaffold for deceased donor vascular tissue allowing the trainee to practice with the actual operating robot, avoiding the need for Virtual Reality or animal models.

- Anatomically accurate
- Portable
- Cleanable

This hybrid model is designed with the aim of providing training on the arterial and venous anastomoses of a kidney transplant. These vascular anastomoses are time critical and represent one of the more challenging parts of the operation. This model can aid surgeons to repeatedly practice performing these anastomoses in their own operating theatre environment, with timings and conditions that are convenient and comfortable to them. Currently, this represents the most realistic reproduction of the actual operation and provides an excellent intermediate step between virtual reality simulators and real surgery.

References

1. Uwechue. R., Gogalniceanu. P., Kessaris. N., Byrne. N., Chandak. P., Olsburgh. J., Ahmed. K., Mamode. N. & Loukopoulos. I.(2018) , https://link.springer.com/article/10.1007/s11701-018-0780-y, https://www.springer.com/journal/11701, 12, 541-544