

Robotic-Assisted surgery

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Overview

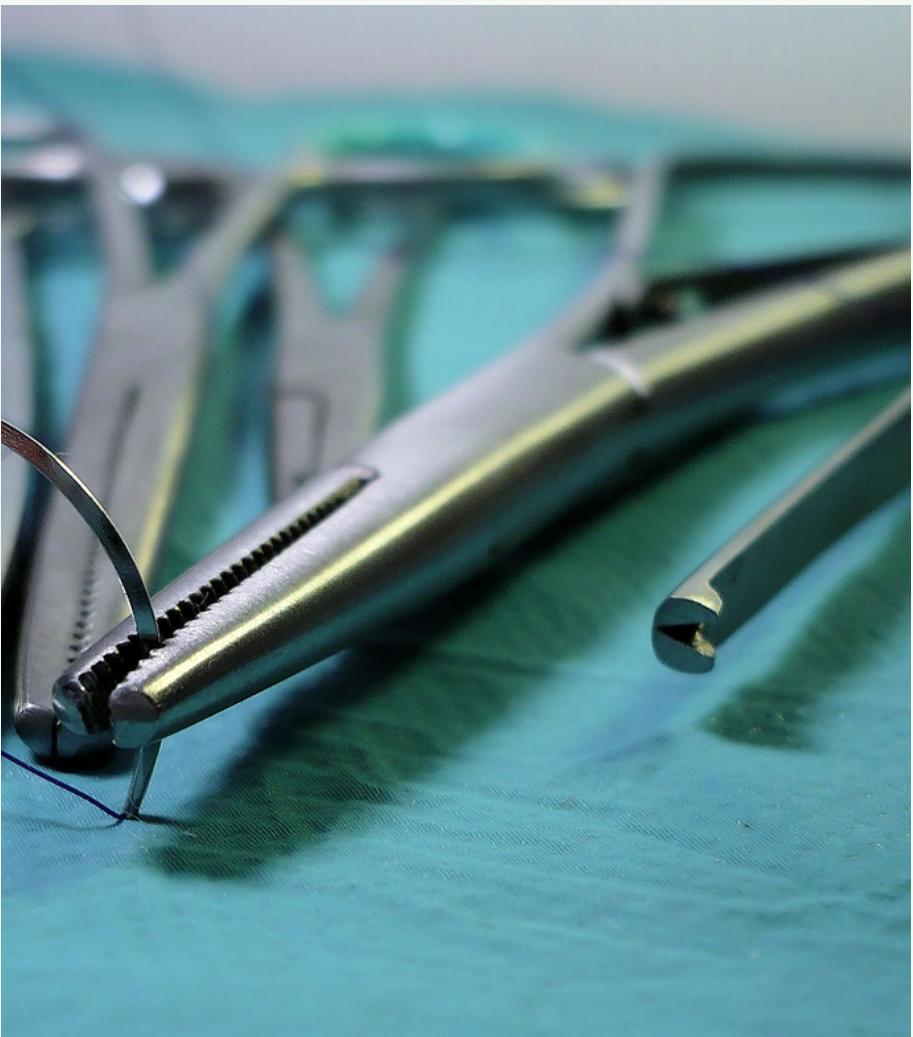
history

- The first use of a robot assisted surgical operation was in 1985
- used in a neurosurgical biopsy (was successful)
- invented by kwoh et al, this invention allowed for potentially more precision.
- This advancement allows less contact between exposed interior tissue and the device which reduces the risk of infection



SURGEONS

the surgeons will work less hours and be less stressed, they can focus more on orally guiding the patient through the operation

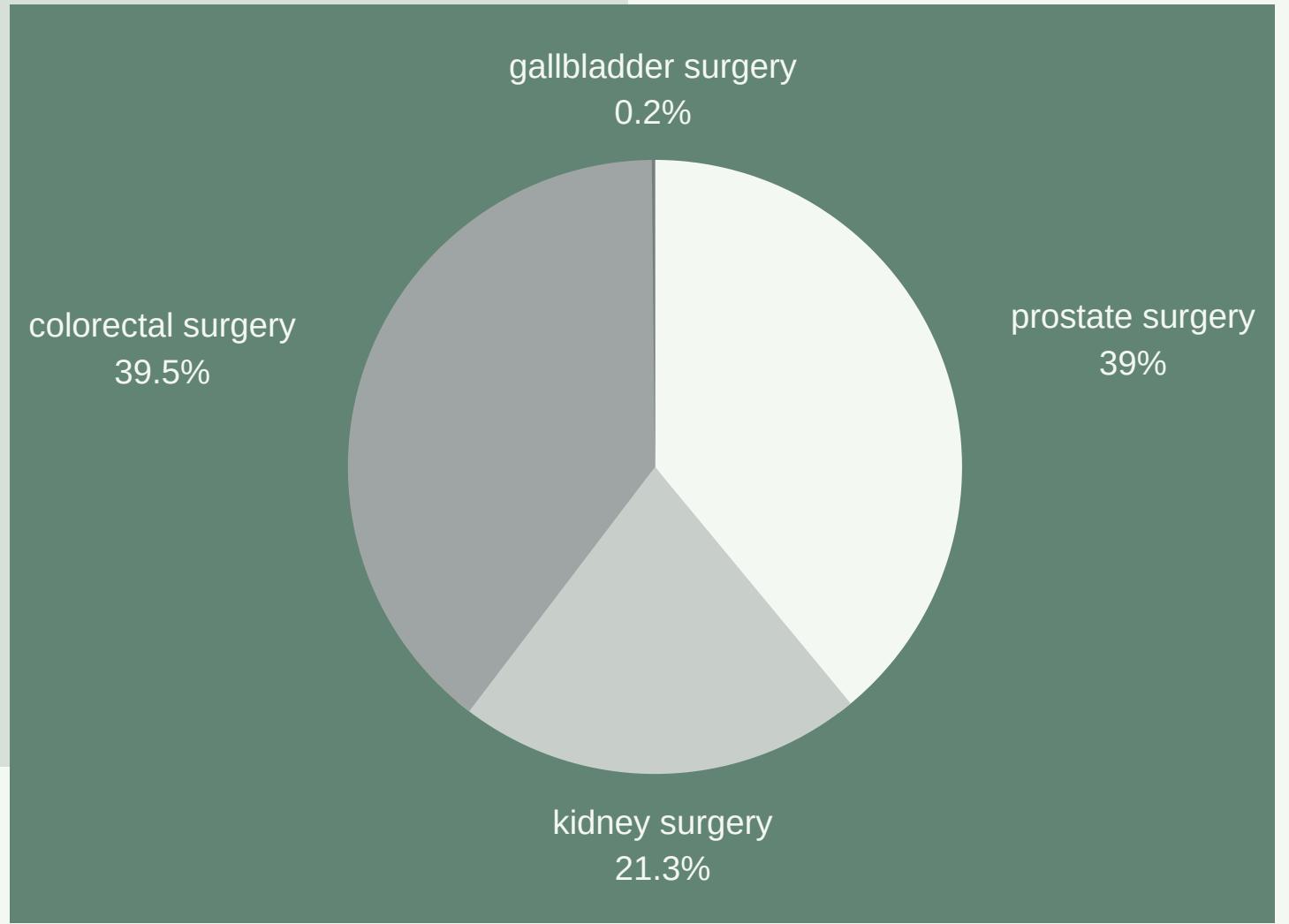


PRECISION

The robots can have better results, and more precision. Resulting in better results and have the least amount of scarring to the patient

WHAT WILL ROBOTIC SURGERY IMPACT?

Success rate of robotic surgery



this graph depicts the success rate of the surgery (in percentage) with the procedure

who robotic surgery will impact:



Robotic surgery can help anyone by using more

- precision
- shorter hospitalization
- smaller incisions (less risk of infection)
- reduced blood loss
- minimal scarring

PROS TO ROBOTIC SURGERY

- Shorter hospitalization
- Reduced pain and discomfort
- Faster recovery time and return to normal activities
- Smaller incisions, resulting in reduced risk of infection



- Reduced blood loss and transfusions
- Minimal scarring
- Greater visualization
- Enhanced dexterity
- Greater precision

Cons to robotic surgery

- Only available in centers that can afford the technology
- surgeon may need to convert to an open procedure with larger incisions if there are complications.



- Risk of nerve damage and compression.
- Robotic malfunction

MY OPINION:

Before starting this presentation I thought that the robots would preform the surgery without human supervision, but now that I know that humans are in complete control of every action the robot performs, I am not against the idea. While I do believe it can still be dangerous if the machine malfunctions the robot-assistance allows for more precision. Overall, I am now more on the side for robotic assisted surgeries.

Summary

References

HISTORY AND THE FUTURE OF ROBOTIC SURGERY

PUMA 560

TYPES OF ROBOTIC SURGERY

IMPACT OF ROBOTIC SURGERY ON DECISION MAKING:
PERSPECTIVES OF SURGICAL TEAMS

ROBOTIC SURGERY