Regional anesthesia beyond our imagination … a vision of THE FUTURE

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Outline
- Characters
- Regional Anesthesia Technology
- The future
- What is the current available technology?
- What problems do we need to solve?
- What do we want to achieve? What is going to happen? What if…? 
THE FUTURE

- Inevitable
- Unknown and unpredictable
- Moving fast

TECHNOLOGY

Application of scientific knowledge for the development of equipment, medications and systems
Creativity, innovation and trends.

- Ultrasound technology
- Augmented reality technology
- Long acting drug delivery systems
- Artificial intelligence
- Big data
- 3D printing
- Telemedicine

REGIONAL ANESTHESIA

Anesthesia technique and/or pain management strategy
Injection of local anesthetic around a nerve/nerves to numb an area of the body

- Decreases costs
- Reduces incidence of postoperative nausea and vomiting (PONV)
- Decreases the incidence of postoperative surgical pain
- Decreases opioid consumption
What problems do we need to solve?

- Appropriate selection of patients and regional technique
- Rate failure
- Complications
- Follow up

Show benefits
Decrease costs
Worldwide application

What do we want to achieve?

- Success
- Profitability
- Safety
- Global Availability
- Improved outcomes
- Training

The story....
What if?

Intraop:
- IV vs Site injection
- 3D ultrasound augmented reality imaging
- Needle guided robotic system
- Needle guided navigation system
- Sono-sensitive drug delivery system

Preop:
- Patient Selection - DNA genomics and AI data
- Block selection - type of surgery
- For how long?
- Preop imaging - 3D printing
- Data collection

Post-op:
- Data collection
- Patient satisfaction surveys
- AI tools for early identification of complications
- Follow up

Training:
- Augmented reality simulation training

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Thank you