Norwegian Centre for
E-health Research

IARIA

Communication between Mentor and Mentee Using Videoconferencing in Surgical Training

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Resume of the presenter

Dr Line Lundvoll Warth

- Associate Professor at UiT The Arctic University of Norway
- Senior researcher at Norwegian Centre for E-health Research
- PhD in Educational Science
- Extensive expertise: technology to communicate in health care by exploring the everyday work tasks of and implementing knowledge sharing between professionals at different levels of care

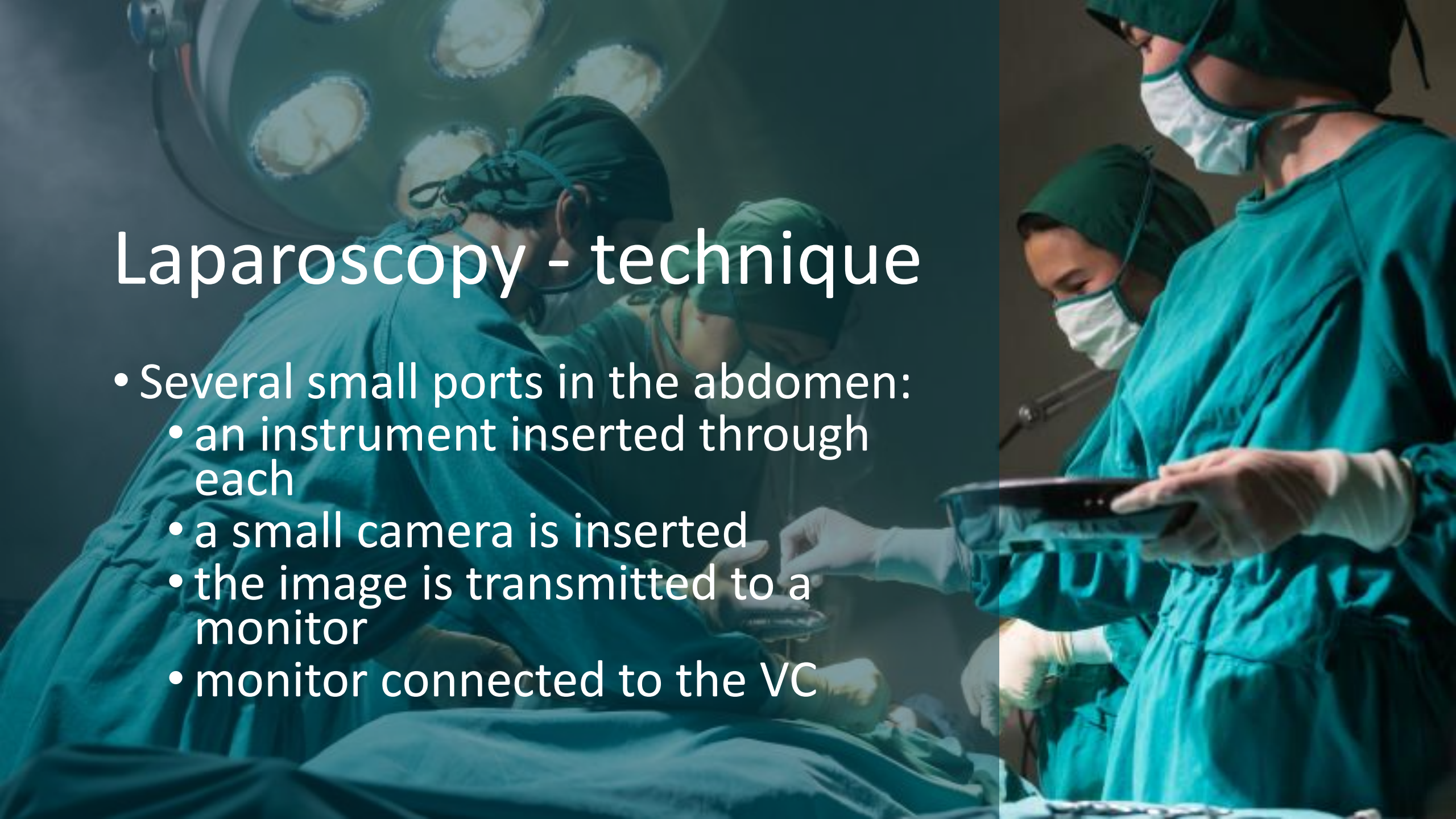
Videoconferencing (VC) in surgical training

Real-time communication between mentor and mentee

Norway - USA

Laparoscopy - technique

- Several small ports in the abdomen:
  - an instrument inserted through each
  - a small camera is inserted
  - the image is transmitted to a monitor
  - monitor connected to the VC



Study explores

- Communication and teamwork knowledge needed to complete an education trajectory
- How mentors and mentees organize and accomplish collaborative work through VC

Qualitative study

- Carried out during 4 months
  - Observations - videotaped
  - Interviews - audiotaped
  - Focus group meetings - videotaped
  - Field notes

The surgical training examined - results

- Organized into eight sessions:
  - Session 1-3: occurred onsite in the OR and involved preparation for the VC
  - Session 4-8: remote using VC
  - After session 8: the mentee was considered an expert in this procedure and the VC sessions ceased

Communication using VC

- Involved skills related to choosing an appropriate course of action and a shared understanding
- Mentee presented a knowledge gap - an opportunity to learning
- Mentor draws upon her experience and knowledge - closing the knowledge gap by establishing a shared understanding
- This shared understanding was based on a collective activity in which the participants were able to bridge the gap and perform a successful procedure

Reviewing the procedure

- Focus group meetings to review the sessions and allow the mentor and mentee to discuss the content and how VC affected communication
- The mentor and mentee reflects on their own communicative skills, including how the mentor related to those around her
  - The mentee completed successful surgery - technical skills
  - The mentor could better understand her performance as a mentor - non-technical skills

Technical skills

- Operating - a technical craft
- Much doing with hands: the laparoscope
- Technical dexterity is an important skill to develop

But …

Non-technical skills

also important …

- situational awareness
- decision-making
- communication
- teamwork and leadership

Essential for surgeons to operate safely and, although they are developed in an informal and tacit manner, they **need to be explicitly addressed in training**

Towards a new training paradigm using VC?

- Allow both technical and non-technical elements to be included
- The use of VC in surgical training raise awareness of:
  - non-technical skills
  - facilitating changes in the workplace
  - emphasizing collaborative skills (i.e., communication and teamwork)

  among both mentors and mentees in the educational process

VC could help produce a new generation of surgeons who are competent in all the skills required for knowledge expansion and safe, high-quality patient care