



CTE Session 5

Technologists Committee

Monday, October 21, 16:45 - 18:15

Session Title

Radioguided Surgery

Chairpersons

Marta Coelho (Essen, Germany)

Angelo Cardoso (Bern, Switzerland)

Programme

- 16:45 - 17:15 **Sergi Vidal-Sicart** (Barcelona, Spain): Radioguided surgery in nuclear medicine – “The power to detect and to remove”
- 17:15 - 17:45 **Nele Eecloo** (Leuven, Belgium): The role of the Technologists in Radioguided Surgery: techniques and patient care
- 17:45 - 18:15 **Pedro Fragoso Costa** (Essen, Germany): Beta-radioguided surgery – Where do we stand and where do we go from here?

Educational Objectives

1. Define the radioguided surgery principles, applications, methodology.
2. Explain the differences between traditional surgery and radioguided surgery.
3. Overview the current state of the art of the radioguided surgery.
4. List the clinical indications of introducing radioguided surgery to the patients.
5. Explain the routine of a multidisciplinary team in the context of radioguided surgery.
6. Mention the protocols and methodologies of conventional NM exams used in radioguided surgery, highlighting the role of the technologist.
7. Conventional nuclear medicine in the context of radioguided surgery: best practice, radiation protection and safety, organisation and patient management.
8. Discuss the surgical radioguidance with beta-emitting radionuclides methodologies and protocols.
9. Outline the beta-emitters used for beta-radioguided surgery.
10. Identify the potential benefits and challenges of introducing beta radioguided surgery into clinical practice.
11. Specify the clinical targets of beta-radioguided surgery based on the current state of the knowledge.
12. Mention the future perspectives of radioguided surgery.

Summary

Nuclear medicine (NM) techniques became widely used methods of oncologic diseases' staging, restaging, and therapy planning. Implementing NM imaging into patients' management improves diseases' staging and therefore – ensures that the therapy of choice is the most appropriate protocol among the available options. Despite the oncological treatment methods' development, the most commonly introduced protocols include surgery. Moreover, in many cases, the surgical intervention is a method of choice for the disease's treatment. NM offers not only diagnostic but also therapeutic tools. Currently, the radioguided surgery and interventional NM provide a wide set of techniques, supporting the accuracy of the surgery.



Operating on the anatomical and metabolic characteristics of the disease, radioguided surgery offers the possibility to perform, i.e., targeted therapy and surgical resections. Multiple protocols, clinical targets, benefits and challenges of radioguided surgery are going to be discussed by the experienced professionals in the field.

Key Words

Beta emitters; gamma emitters; nuclear medicine; oncology; radioguided surgery; radioisotopes