

POSTER PRESENTATION

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# FDG-PET/CT pitfalls in gynecological and genitourinary oncological imaging

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## Learning objectives

1. To understand the role of FDG PET/CT imaging in the multimodality investigation of gynecological and genitourinary cancers.
2. To describe the mechanism of action and technical pitfalls of FDG-PET/CT.
3. To highlight key imaging features of physiological and non-physiological FDG uptake and show how this is essential for interpretation of gynecological and genitourinary FDG-PET/CT studies.
4. to review the pathophysiological mechanisms leading to potentially false-positive and false-negative assessments.

## Content organisation

Introduction of FDG-PET/CT

- Mechanism of action
- Role in gynecological and genitourinary oncological imaging
- FDG-PET/CT imaging protocols

False positives in gynecological and genitourinary oncological imaging:

- Physiological FDG-PET uptake – pictorial examples of uptake in endometrium and ovaries
- Non-physiological FDG-PET uptake – pictorial examples of pelvic inflammatory disease, fibroids, endometriosis

False negatives in gynecological and genitourinary oncological imaging:

- Physiological FDG-PET uptake – pictorial examples of urinary excretion masking malignant lesions
- No/low FDG uptake – pictorial examples of necrotic lymphadenopathy and low grade tumours
- Artefacts

Pearls explaining how to minimise false interpretation

## Conclusion

FDG-PET/CT has a useful role in gynecological and genitourinary oncological imaging. However, understanding of physiological and non-physiological FDG-PET uptake is vital to understand potential false positive and false negatives in interpretation.

FDG PET/CT should be used as one part of the multimodality investigation of gynecological and genitourinary cancers.

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