Evaluation of Tumor Infiltrating Lymphocytes (TILs) in Endometrial Carcinoma

Guidelines for TILs assessment from the “International Immuno-Oncology Biomarker Working Group”

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Define area for TILs evaluation

Evaluate TILs within the borders of the tumor, both in the central tumor and at the invasive margin.
Define area for TILs evaluation

Evaluate TILs in this area

Exclude this area
Define area for TILs evaluation

Patterns of myo-invasion: evaluate TILs in the connective tissue just beneath the epithelial layer within 1mm (invasive margin)

- **Broad front pattern**: Include this area
- **Adenomyotic pattern**: Include these areas
- **Widely separated single-glands**: Exclude this area
Define area for TILs evaluation

Immune infiltrates outside of the tumor borders are not included.

Evaluate TILs in this area

Exclude this area

Do not include perivascular immune infiltrates, often present around lymphovascular space invasion (LVSI).
Define area for TILs evaluation

Be aware of tumor present in adenomyosis: small endometrial stromal cells may mimic immune cells
Define area for TILs evaluation

Do not use areas with poor fixation
Determine the localization of the TILs

Stromal TILs

Intratumoral TILs
Determine the localization of the TILs

Stromal TILs
(include fibrovascular cores of papillary structures)

Intratumoral TILs

Exclude areas of hemorrhage
Determine the localization of the TILs

Be aware of endometrial carcinomas with a spindled, sarcomatoid or solid growth.
Determine type of inflammatory infiltrate

Include only mononuclear infiltrate (lymphocytes & plasma cells)

Exclude areas of necrosis for evaluation of TILs
Determine type of inflammatory infiltrate

Score only mononuclear infiltrate: a MELF pattern of invasion is often accompanied by a neutrophilic infiltrate: exclude this area

(MELF = microcystic, elongated and fragmented)

Evaluate TILs in this area