Liquid biopsy in advanced NSCLC: EpCAM+ and EpCAM- circulating tumor cells, tumor derived extracellular vesicles and cell-free circulating tumor DNA

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**CONCLUSION**

Presence of tdiV is significantly associated with poor overall survival.

**METHOD**

Analysis of the CellSearch cartridge (n=90) with open source program ACCEPT after processing.

**DEFINITION**

DNA present in plasma originating from the tumor

**CONCLUSION**

ctDNA concentration did not significantly correlate to overall survival, but might be reached by increasing the number of patients.

**METHOD**

Plasma was collected from the CellSave tube and ctDNA concentration was measured with the mFAST-SeqS approach (n=51).

**DEFINITION**

DNA present in plasma originating from the tumor

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**METHOD**

Blood discarded by CellSearch after immunomagnetic isolation was filtered through 5µm pores and stained with a CK-antibody cocktail (n=86). HC (n=27) spiked with ~300 EpCAM- NSCLC cell line NCI-H1650 cells (1.4x106 EpCAM antigens and size 12µm): mean recovery = 31% [min 11-max 350].

**DEFINITION**

Circulating Tumor DNA

**CONCLUSION**

Blockning of the filter influences CTC recovery. Presence of EpCAM- CTC are not correlated with overall survival.

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**DEFINITION**

CTC are EpCAM+, DAPI+, cytokeratin+, CD45+, CK overlay >50%.

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Blocking of the filter influences CTC recovery. Presence of EpCAM- CTC are not correlated with overall survival.

**METHOD**

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**DEFINITION**

CTC are EpCAM+, DAPI+, cytokeratin+, CD45+, DAPI-CX overlay.

**CONCLUSION**

Presence of EpCAM+ CTC is significantly associated with poor overall survival.

**METHOD**

7.5 mL blood measured with CellSearch for detection of CTC by immunomagnetic selection (n=91 and HC n=39).

**DEFINITION**

CTC are EpCAM+, DAPI+, cytokeratin+, CD45-, round, >4µm in size, DAPI-CX overlay >50%.

**CONCLUSION**

Presence of EpCAM+ CTC is significantly associated with poor overall survival.

**METHOD**

EpCAM+ circulating Tumor Cells

**DEFINITION**

Circulating Tumor DNA

**CONCLUSION**

ctDNA concentration did not significantly correlate to overall survival, but might be reached by increasing the number of patients.

**METHOD**

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