VEGFR-3 SIGNATURE EXPRESSION BY HISTOLOGY TO CLASSIFY PATIENT POPULATION FOR THE SELECTIVE VEGFR-3 INHIBITOR EVT801

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VEGFR-3 expression in kidney cancer cohorts

Consecutive slices of the same tumor were stained for VEGFR-3, CD34 and D2-40. VEGFR-3 was expressed in CD34-positive vessels in the tumor and in the normal adjacent tissue, whereas D2-40 staining was mainly observed in normal adjacent tissue. Black arrows indicate lymphatic vessels.

Patient stratification based on VEGFR-3 expression on tumoral tissues (pre and post treatment)

- VEGFR-3 expression by IHC and IF
- Duplexes VEGFR-3/CAIX/CD8/CD31/PD-L1
- VEGFR-3 + AntiPD1 Ab-resistance mRNA signature

Biomarker strategy

Unbiased biomarkers (CD11C & CD207)
Total RNA sequencing
Biomarkers (several timepoints)
Blood pressure measurement

Preliminary results and promising leads

3 high grade serous ovarian carcinoma patients included in the phase I clinical trial exhibited a strong VEGFR3 expression associated with a significant tumor regression in one patient

Conclusion

- EVT801 presents a more selective and less toxic profile than two major approved inhibitors of VEGFRs (i.e., sorafenib and pazopanib).
- In monotherapy, EVT801 showed a potent antitumor effect in tumors with VEGFR-3- positive microenvironment in preclinical models
- EVT801 will be evaluated as single agent in patients with kidney cancer and soft tissue sarcomas. Combination with cancer immunotherapies would come next.