Author's response to reviews

Title: The predictive value of microRNA-126 in relation to first line treatment with capecitabine and oxaliplatin in patients with metastatic colorectal cancer

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To the Editor

Attached please find the manuscript entitled: "The predictive value of microRNA-126 in relation to first line treatment with capecitabine and oxaliplatin in patients with metastatic colorectal cancer", which I on behalf of the authors hope you will consider for publication in “BMC Cancer”. The manuscript contains original, unpublished findings and is not submitted for publication elsewhere.

MicroRNAs (miRNAs) are a group of small, non-coding RNAs that regulate several biological and pathological processes. MicroRNA-126 is so far the only identified endothelial cell (EC)-specific miRNA and its important role in regulating angiogenesis and vascular integrity has been demonstrated in pre-clinical studies. The aim of this study was to analyse the possible predictive value of microRNA-126 in patients with metastatic colorectal cancer (mCRC) in relation to first line treatment with capecitabine and oxaliplatin (XELOX). The study included 89 patients. In situ hybridization (ISH) was performed to detect miRNA-126 in formalin-fixed paraffin embedded tissue from primary tumours. The expression level was measured using image analysis. MicroRNA-126 expression was significantly higher in the responding patients compared to the non-responding patients and the expression level of miRNA-126 reflected a significant difference in progression free survival as well. The new application of the ISH method presented here represents an alternative technique to quantify angiogenesis and the results indicated that miRNA-126 may be an important predictive marker to chemotherapy applied in the clinical setting, but the results call for validation in a prospective trial. Furthermore, it shall be interesting to analyse the possible predictive value of miRNA-126 in patients with mCRC treated with chemotherapy combined with anti-angiogenetic treatment.

Looking forward to hearing from You,
Yours sincerely

Torben Frøstrup Hansen, MD, PhD

List of suitable peer reviewers:

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