Author's response to reviews

Title: Early diagnostic value of Bcl-3 localization in colorectal cancer

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Author's response to reviews: see over
Dear Dr. Solera,

Please find enclosed our manuscript entitled “Early diagnostic value of Bcl-3 localization in colorectal cancer” which we would like to submit to *BMC Cancer* for your consideration.

B-cell leukemia 3 (Bcl-3) is a member of the Inhibitor of κB (IkB) family, which regulates a wide range of biological processes by acting as a transcriptional activator or as a repressor of target genes. We could show previously that high levels of Bcl-3 expression and activation is observed in different types of human cancer. Since Bcl-3 can be localized both in the cytoplasm and nuclei of cancer cells, in the present manuscript we investigated whether localization of Bcl-3 has any prognostic value in colon cancer.

We found that in freshly isolated colon biopsies Bcl-3 was localized in the cytoplasm of the cancer tissues, in contrast to non-cancerous tissue, which showed an accumulation of Bcl-3 in the nuclei. These results were confirmed by analysing Bcl-3 localization in a cohort of large colon tissue microarray consisting of 270 cases. Furthermore, Ki-67-positive tumour cells and different human colon cancer cell lines showed cytoplasmic localization of Bcl-3. Our study suggests that a shift from positive Bcl-3 staining in the nucleus to the cytoplasm could indicate the transition of normal colonic epithelia cells into colon cancer. This finding implies that Bcl-3 could serve as an early diagnostic marker in colorectal cancer.

We would like to thank you in advance for your time and consideration

Yours Sincerely

Katarzyna Masoumi