Author's response to reviews

Title: Towards real-time metabolic profiling of biopsy specimen during a surgical operation by 1H HRMAS-NMR: a case report

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Author’s response to reviews: see over
Dear Editor,

Please find attached with this letter the electronic version of a manuscript which we would like to submit for publication in Journal of Medical Case Reports entitled “Real-time metabolic profiling of intact colon biopsies by $^1$H HRMAS NMR”.

In keeping with journal style, I modified the manuscript including all relevant details concerning the case. I include Patient Consent, Competing Interest and Authors’ Contribution sections.

This paper introduces the concept of real-time metabolic profiling of intact human biopsies by $^1$H high resolution magic angle spinning (HRMAS) NMR as a tool to evaluate tumorous infiltration during a surgical operation. The proof of concept of the method is demonstrated on an adenocarcinoma colon specimen. By using a previously established statistical PLS-DA model, we were able to classify properly nine biopsies originating from the centre and the vicinity of the tumour. The total time required for the full metabolic analysis was 17 minutes per sample. The results obtained are in full agreement with the histopathological results.

To our knowledge, this is the first report describing the potential application of metabolic profiling by $^1$H HRMAS NMR to the field of surgery. We hope that this letter will be of interest to the broad range of readers of Journal of Medical Case Reports.

We are looking forward to hearing from you at your earliest convenience.

Yours sincerely,

I.J. Namer