Reviewer’s report

Title: Using an oblique incident laser beam to measure the optical properties of stomach mucosa/submucosa tissue

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Reviewer: Alexey N Bashkatov

Reviewer's report:

In this paper the authors investigated the optical properties of stomach tissues. The study is very interesting and important for tissue optics, and data presented in the paper can be used for many medical applications. Therefore, the paper of Wei et al. is very important and relevant and so the paper may be accepted to publishing in BMC Gastroenterology. However, some remarks should be corrected before the acceptance. They are listed below.

1. In this paper measure the absorption and reduced scattering coefficients of stomach tissues using the reflectance spectroscopy in the wavelength range from 635 to 980 nm. Results of these measurements are presented in figs. 2 and 3. However, the authors not compare the results with similar results obtained by other authors (for example, Bashkatov A.N., et al. Optical properties of human stomach mucosa in the spectral range from 400 to 2000 nm: prognosis for gastroenterology // Medical Laser Application, Vol. 22, P. 95-104, 2007; Holmer C., et al. Optical properties of adenocarcinoma and squamous cell carcinoma of the gastroesophageal junction // J. Biomed. Opt., Vol. 12, N. 1, 014025, 2007; etc). Thus, comparison between results presented in the reviewed paper and obtained other authors should be performed.

2. In last paragraph of Section "Discussion" the authors write: "Fig. 6 shows that the diffuse reflectance for tissue samples are 0.456 mm-1 at 635 nm and drops to 0.425 mm-1 at 730 nm...". However, it is well known, that reflectance is dimensionless parameter, and, so, not clear how the reflectance coefficient was measured in units of inverse millimeters.

3. In Section "Materials and Methods" (Subsection "Theory") after Eq. 7 authors write: "with m's the reduced scattering coefficient, i.e. m's (1-g)". The "m's (1-g)" should be changed to ms (1-g)


Level of interest: An article whose findings are important to those with closely
related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests