

Cellvizio

Cellvizio is an [endomicroscopy](#) system which generates optical biopsies, providing microscopic images of tissue instantaneously and in a minimally-invasive manner. This simple pattern recognition facilitates better decision-making and improved patient management. Clinical trials have shown that Cellvizio can provide benefits at each step of the patient management, and in multiple indications, including:

Barrett's Esophagus

Gastric Diseases

Bilio-pancreatic Strictures

Pancreatic Cysts

Inflammatory Bowel Diseases

Colorectal Lesions

Lung Nodules

Urinary Tract Lesions

The management of [gliomas](#) is based on precise histologic diagnosis. The tumor tissue can be obtained during open surgery or via [stereotactic biopsy](#). Intraoperative tissue imaging could substantially improve biopsy precision and, ultimately, the extent of resection.

In a prospective observational study, 9 adult patients were enrolled between September 2014 and January 2015. Two contrast agents were used: [5 aminolevulinic acid](#) (3 cases) or intravenous [fluorescein](#) (6 cases). Intraoperative imaging was performed with the [Cellvizio](#) system (Mauna Kea Technologies, Paris). A 0.85-mm probe was used for stereotactic procedures, with the biopsy needle modified to have a distal opening. During open brain surgery, a 2.36-mm probe was used. Each series corresponds to a separate histologic fragment.

The diagnoses of the lesions were glioblastoma (4 cases), low-grade glioma (2), grade III oligoastrocytoma (2), and lymphoma (1). Autofluorescence of neurons in cortex was observed. Cellvizio images enabled differentiation of healthy "normal" tissue from pathological tissue in open surgery and stereotactic biopsy using fluorescein. 5-Aminolevulinic acid confocal patterns were difficult to establish. No intraoperative complications related to pCLE or to use of either contrast agent were observed.

Pavlov et al., report the initial feasibility and safety of intraoperative pCLE during primary brain tumor resection and stereotactic biopsy procedures. Pending further investigation, pCLE of brain tissue could be utilized for intraoperative surgical guidance, improvement in brain biopsy yield, and optimization of glioma resection via analysis of tumor margins ¹⁾.

¹⁾

Pavlov V, Meyronet D, Meyer-Bisch V, Armoiry X, Pikul B, Dumot C, Beuriat PA, Signorelli F, Guyotat J. Intraoperative Probe-Based Confocal Laser Endomicroscopy in Surgery and Stereotactic Biopsy of

Low-Grade and High-Grade Gliomas: A Feasibility Study in Humans. Neurosurgery. 2016 Oct;79(4):604-12. doi: 10.1227/NEU.0000000000001365. PubMed PMID: 27643918.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

<https://neurosurgerywiki.com/wiki/doku.php?id=cellvizio>

Last update: **2024/06/07 03:00**

