

Gastroenterology

Non-invasive diagnostic test for Eosinophilic Esophagitis

Brief Description of Technology

A non-invasive method for Eosinophilic diagnosis and monitoring using buccal membrane biomarkers

TECHNOLOGY ID

2020-0206

COMPLEMENTARY TECHNOLOGY

2019-0211

BUSINESS OPPORTUNITY

Exclusive License

TECHNOLOGY TYPE

Diagnostic

PATENT INFORMATION

Provisional Filed

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Technology Overview

Eosinophilic esophagitis (EoE) is a chronic esophageal disease characterized by (allergic) immunologic responses to food, leading to esophageal-specific eosinophilic inflammation associated with a variety of symptoms, including chest and abdominal pain, persistent heartburn, vomiting, and dysphagia. EoE is currently treated with food elimination dietary therapy, proton pump inhibitor therapy, and topical glucocorticoids. EoE reoccurs nearly universally after cessation of any therapy and the only widely accepted means of diagnosing and monitoring EoE are esophageal biopsies. The histology method has limitations, such as being subjective, lengthy, complicated, expensive, and non-specific, and the esophagoduodenoscopy (EGD) requires general anesthesia in many patients. This technology overcomes the diagnosis and monitoring limitations by providing a non-invasive genetic test for EoE.

Applications

Diagnostic assay to monitor or diagnose Eosinophilic Gastritis (EG) through detection of the presence and level of biomarkers in the buccal membrane of the patient. The use of a buccal membrane (cheek swab) sample reduces the need of tissue biopsy of the esophagus while screening, diagnosing, monitoring Eosinophilic Esophagitis (EoE)

Advantages

- Non-invasive buccal membrane testing for EoE diagnosis and monitoring
 - Benefits include improved accuracy, earlier detection, and more effective treatment
 - Eliminates the need for sedation and esophageal biopsy

Market Overview

Prevalence of EOE in the US is approximately 57-90 / 100K people. It is slightly lower in the European market at 30-50 / 100K. The Incidence is 5-10 / 100K people.

Investigator Overview

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