Symptomatic Patients Suspected of Eosinophilic Gastritis and/or Gastroenteritis HaveEvaluatedMucosal Mast Cell Counts Without Eosinophilia


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BACKGROUND

- Pathologic accumulation and over-activation of eosinophils are implicated in multiple chronic inflammatory diseases in the GI tract including eosinophilic esophagitis (EoE), gastritis (EG), gastroenteritis (EGID), and colitis - collectively termed eosinophilic gastrointestinal diseases (EGIDs)

- Patients with EGIDs have decreased quality of life due to debilitating symptoms such as dysphagia, abdominal pain, nausea, vomiting, and diarrhea

- While the pathogenesis of EGIDs has historically been thought to be driven by eosinophils, mast cells have also been shown to be elevated in EoE

- There is no current approved therapy for EG/EGE

- Due to lirentelimab’s ability to inhibit mast cells, patients with and without tissue eosinophilia

OBJECTIVE

- To characterize symptomatic patients with suspected EG/EGE who did not meet histopathologic entry criteria for mucosal eosinophilia for a Phase 2 randomized, double-blind, placebo-controlled study of lirentelimab in patients with EG/EGE

METHODS

- Subjects with prior diagnosis or suspected EG/EGE entered screening

- Eligible patients were randomized to receive one of two treatments: lirentelimab (AK002) 1 mg/kg or placebo

- Biopsy samples were taken from each standardized protocol:

- Four to six esophageal biopsies

- Four to six duodenal biopsies

- Multiple biopsies were taken from each symptomatic subject according to a standardized protocol:

- Three to five gastric biopsies

- Four duodenal biopsies

- Four esophageal biopsies (only if subject had a history of EoE or EoE features were observed during EGD)

RESULTS

- 87 of 88 symptomatic patients had elevated mast cell counts

- Table 1. Baseline Characteristics

- Eighty-eight patients with suspected EG and/or EGE and active symptoms underwent endoscopy and biopsy: 72 of 88 met histologic eosinophil criteria for the study

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- These data suggest that mast cells play an important pathogenic role in patients with suspected EG/EGE and raise the possibility of a non-eosinophilic condition driven by mast cells

CONCLUSIONS/DISCUSSION

- Due to lirentelimab’s ability to inhibit mast cells, patients with elevated mast cells without tissue eosinophilia were offered to participate in an open label lirentelimab clinical trial (Data expected in 2020)