INTRODUCTION: Eosinophilic pancreatitis (EP) is a rare form of pancreatitis characterized by diffuse infiltration of the pancreas with eosinophils & elevated serum immunoglobulin E levels. Diagnosis is clinically difficult as endoscopic/radiographic findings often mimic neoplastic, leading to surgical resection. The aim of this review is to chronicle all cases of EP, describe clinical & radiographic presentation & outcome.

METHODS: A systematic search was performed with an experienced librarian of PubMed, Embase & Scopus for search terms of "Eosinophilic Pancreatitis" from 1975–4/19/2019. We included all case reports, series, & randomized studies with diagnosis of EP. Exclusion criteria were articles with other attributable pancreatitis etiologies, fetal EP causes, or non-English language. All articles were reviewed by 2 authors. Data was collected on clinical & radiographic findings, comorbidities & outcomes.

RESULTS: The search yielded 3,179 results of which 18 case reports/series of 23 total patients were included. 17/23 (73.9%) were men, mean age 43 ± 17 years (range 4–74). Most common symptoms at presentation were abdominal pain (18/23), jaundice (9/23), weight loss (6/23), nausea/vomiting (6/23). Eosinophilia >1500 cells/mm³ in blood or urine & asthma/allergies >4/23. Imaging revealed abnormalities (mass, hypodensity, or enlargement) located in the pancreatic head (13/23), body (2/23) & tail (2/23). A pancreatic mass was most commonly found (11/23), followed by pancreatic enlargement (8/23), pancreatic duct dilation (5/23) & bile duct dilation (8/23). 4/23 patients had a pseudocyst, none had necrosis. Pathology showed prominent eosinophilic infiltrate in all cases, with 5/23 having few lymphocytes & 9/23 with diffuse inflammatory infiltrates. 16/23 patients underwent surgical resection with EP diagnosis made post-operatively. 5/23 patients had complications (4/23 resolved with steroids, 1 due to systemic hypereosinophilia with renal failure & chylothorax).

CONCLUSION: EP presents more commonly in men as a 3:1 ratio in the 5th decade. EP should be considered in patients with abdominal pain, jaundice, & weight loss with imaging of a pancreatic mass or enlargement, or ductal dilatation. EP masquerades as malignancy; however, diagnostic clues to EP include peripheral eosinophilia & presence of diabetes or asthma/allergies. Awareness of EP may allow for potential non-operative diagnosis, avoidance of surgery, & appropriate medical therapy.