Etanercept: A Rare Cause of Drug-Induced Pancreatitis

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Drug-induced pancreatitis(DIP) is a rare but notable cause of acute pancreatitis(AP). Prior data comes from case reports and series, with definitive studies and trials lacking. To definitively diagnose DIP, a latency period with reintroduction of the medication associated with a return of symptoms is required. This is often not feasible due to risk of disastrous complications^{1,2}.

- reported often in the literature.

•Our patient is a 65-year-old female with a history of rheumatoid arthritis(RA) recently started on etanercept who presented endorsing three days of epigastric abdominal pain. She denied a history of pancreatitis, gallstones, alcohol use, trauma, or ERCP.

•Vitals were stable, with a white blood cell count of 11.4K/uL, normal liver function tests and calcium, lipase 1012U/L, and triglycerides of 187 mg/dl. Imaging indicated no evidence of gallstones nor notable pancreatitis.

 Infection was deemed unlikely with no worsening leukocytosis, fevers, evidence of infection on imaging, or growth noted on blood cultures. Antinuclear antibody(ANA) and immunoglobulin G4(IgG4) would be negative.

•The patient was advised to stop etanercept therapy and follow up with gastroenterology and rheumatology outpatient. Since discharge, she is doing well off etanercept outpatient.

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Amongst these cases, etanercept-induced pancreatitis presents a rare subset not

Methods



Figure 1: CTAP with evidence of hepatic steatosis and no evidence of acute pancreatitis.



Figure 2: Transverse Right Upper Quadrant Ultrasound in Left Lateral Decubitus positioning indicating nondistended gallbladder, no pericholecystic fluid, nor any gallstones. Sonographic Murphy's sign was negative.



Results

Discussion

- DIP is a diagnostic dilemma, with hundreds of reported medication affiliations and no consensus diagnostic algorithm.
- After common etiologies are excluded, the differential should be broadened to include DIP with a thorough evaluation of every prescription and non-prescription medication the patient has taken.
- TNF- α inhibitors and of note etanercept are not well reported as being associated with acute pancreatitis. With one of two prior reports reporting a fatality, a high index of suspicion should be utilized in patients on etanercept presenting with acute pancreatitis. We acknowledge that further studies are needed to appropriately assess this relationship.

Conclusion

- Drug-induced pancreatitis is overall a rare cause of pancreatitis that is a diagnosis of exclusion
- Diagnosis entails excluding more common causes of acute pancreatitis and ideally a reintroduction of the offending agent, which is often not feasible due to potential disastrous consequences
- Etanercept is being increasingly used and its association with pancreatitis is not well reported and understood, but must always be considered in a associated patients presenting with abdominal

References

- 1. Jones MR, Hall OM, Kaye AM, Kaye AD. Drug-induced acute pancreatitis: a review. Ochsner J. 2015;15(1):45-
- 2.2) Goodchild G, Chouhan M, Johnson GJ. Practical guide to the management of acute pancreatitis. Frontline *Gastroenterol*. 2019;10(3):292-299. doi:10.1136/flgastro-2018-101102
- →.3) Weissman S, Aziz M, Perumpail RB, Mehta TI, Patel R, Tabibian JH. Ever-increasing diversity of drug-induced
- pancreatitis. World Journal of Gastroenterology. 2020;26(22):2902-2915. doi:10.3748/wjg.v26.i22.2902
- 4.4) Zheng J, Yang Q-J, Dang F-T, Yang J. Drug-induced pancreatitis: An update. Arab Journal of Gastroenterology. 2019;20(4):183-188. doi:10.1016/j.ajg.2019.11.005
- 5.5) Trivedi CD, Pitchumoni CS. Drug-induced pancreatitis. Journal of Clinical Gastroenterology. 2005;39(8):709-716. doi:10.1097/01.mcg.0000173929.60115.b4
- **0.**6) Gunawan F, Fayyaz B, Mihardja TO. Etanercept A culprit agent in acute pancreatitis?. *J Community Hosp* Intern Med Perspect. 2019;9(2):147-149. Published 2019 Apr 12. doi:10.1080/20009666.2019.1593783

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