

INTRODUCTION

- Tamoxifen can cause paradoxical effects on lipid metabolism and increase triglyceride levels
- Hypertriglyceridemia-induced acute pancreatitis causes 1-3% of all cases of acute pancreatitis that can culminate in increased severity and morbidity.
- Tamoxifen is known to cause hypertriglyceridemia, but acute pancreatitis as a sequel to this complication remains exceedingly rare.

METHODS

- We performed a systematic search of MEDLINE, Cochrane, Embase, and Google Scholar by using MeSH terms and keywords "tamoxifen," "acute pancreatitis," and "hypertriglyceridemia" from tamoxifen approval in 1977 to December 2021.
- A total of 24 cases were identified using the database search.
- The diagnosis of acute pancreatitis was established on meeting two of the three Revised Atlanta Classification criteria.

TABLE

Authors, year	Age	Dosage (mg/day)	Onset delay (months)	Severity	Rx	Outcome, hospital stay (days)
Noguchi et al.,1987	36	20	7	S	HD	Died
Elisaf et al., 2000	53	20	8	M	Con	Rec, 14
Lin et al., 2004	43	NA	24	Mod	Con	Rec, 42
Alagozlu et al.,2006	46	20	12	M	Con, IV Insulin	Rec, 14
Sakhri et al.,2010	44	20	12	S	MV, Con	Rec, 60
Üskent et al.,2011	41	20	3	Mod	Con	Rec, 10
Czyzykowski et al.,2014	55	20	9	Mod	Con	Rec, NA
Kim et al., 2014	40	20	3	Mod	Con, IV Insulin	Rec, 14
Li et al., 2016	49	NA	0.7	M	Con	Rec, 30
Singh et al.,2016	50	20	3	S	Con, IV Insulin	Rec, NA
Kataria et al.,2017	50	20	1	M	Con	Rec, 14
Kochar et al.,2018	48	20	48	Mod	Con	Readmitted with AP
Jain et al., 2018	36	NA	1	M	Con	Rec, 10
Yoneyama et al.,2019	48	20	6	S	Con	Rec, 7
Jang et al.,2019	51	10	6	S	Con	Rec, NA
Tey et al., 2019	55	20	48	M	Con, IV insulin	Rec, 4
Aboutarik et al.,2020	42	20	9	M	Con	Rec, NA

Key: M-Mild, Mod-Moderate, S-Severe, HD-hemodialysis, Con-Rx (IVF, pain control, lipid lowering medication), MV-Mechanical Ventilation, Rec-Recovered

RESULTS

- A total of 17 case reports fulfilled our inclusion criteria. The mean age of included patients was 35.84 ± 5.99 years.
- Clinical presentation was mainly related to vomiting (65%), abdominal pain (59%), nausea (47%), and epigastric discomfort (18%). Hypertriglyceridemia (55%), diabetes mellitus (27%), and hypertension (18%) were major comorbid conditions.
- Pancreatitis was categorized into mild (35%), moderate (35%), or severe (30%) forms.
- Treatment mainly consisted of conservative measures, but intravenous insulin (24%) and plasmapheresis (6%) were used in severe cases.
- The overall mortality rate was 6%.

CONCLUSION

- Tamoxifen-induced hyper triglyceridemic pancreatitis is a potential complication of tamoxifen therapy.
- The findings underscore the need for regular monitoring of serum lipids in these patient patients, especially those with pre-existing hypertriglyceridemia or other comorbid conditions.
- Monitoring can help reduce M&M associated with this condition and improve the quality of life for patients undergoing tamoxifen therapy