

Figure 1. An abdominal CT scan showing stranding edema within the peripancreatic fat suggestive of acute pancreatitis (yellow arrow)

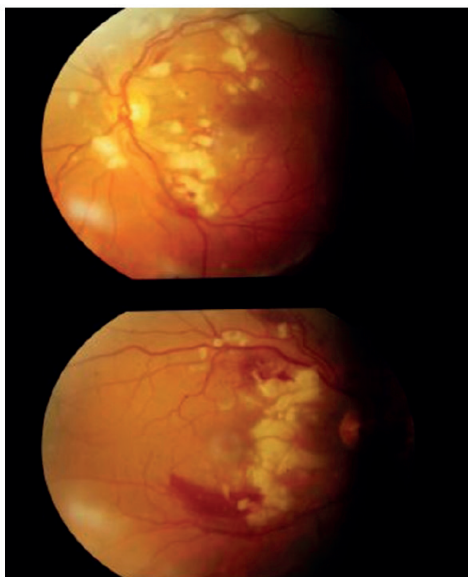


Figure 2. Fundus examination showing cotton wool spots, Purtscher flakens.

Discussion

Acute pancreatitis is commonly encountered emergency in clinical gastroenterology practice. The diagnosis of acute pancreatitis relies on the presence of two of the following criteria including typical abdominal pain, elevated amylase, and/or lipase thrice upper limit of normal, imaging features, suggesting pancreatitis. Severity is assessed by the presence or absence of organ failure [2]. The exact etiopathogenesis of pancreatitis is not known, but the most accepted hypothesis is premature activation of trypsinogen leading to complement mediated tissue damage and inflammation leading to systemic inflammatory response syndrome [3]. Purtscher's retinopathy is one of the rarest complications associated with acute pancreatitis due to posterior retinal artery occlusion. Exact incidence and prevalence are not known due to rare occurrence [4], and the implicated pathogenesis is usually due to cytokine flood leading to microvascular injuries and venous

occlusion, which causes hemorrhages and cotton wool spots [5]. This type of retinopathy is not exclusive to pancreatitis and can be seen after extensive traumatic injury and severe sepsis. The management of acute pancreatitis remains vigorous fluid challenge for initial 72 hours along with analgesia. Later part of disease is dominated by sepsis which can be managed with antibiotics, percutaneous drainage, and surgical or endoscopic necrosectomy. Retinopathy runs an independent course and not related with disease severity. The management of retinopathy is largely symptomatic, and there is no proven medication for treatment.

Conclusion

Any vision disturbances in patient with pancreatitis should be promptly addressed, Purtscher's retinopathy is a rare complication and may left undetected leading to permanent vision loss.

What is new?

Blindness due to Purtscher's retinopathy is a rare complication of pancreatitis and has been described previously in various literatures. In this case report, the patient developed this complication on day 2 after hospitalization and could have to lead to complete vision loss which had been missed.

List of Abbreviations

CT Computed tomography

Consent for publication

Written informed consent was obtained from the guardian of patient.

Ethical approval

Ethical approval is not required at the institution to publish an anonymous case report.

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References

1. Carrera CRL, Pierre LM, Medina FMC, Pierre-Filho PDTP. Purtscher-like retinopathy associated with acute pancreatitis. *Sao Paulo Med J.* 2005;123(6):289–91. <https://doi.org/10.1590/S1516-31802005000600008>
2. Wang X, Qin L, Cao J. Value of the revised Atlanta classification (RAC) and determinant-based classification (DBC) systems in the evaluation of acute pancreatitis. *J Curr Med Res Opin.* 2018;34(7):1231–38. <https://doi.org/10.1080/03007995.2017.1389705>
3. Manohar M, Verma AK, Venkateshaiah SU, Sanders NL, Mishra A. Pathogenic mechanisms of pancreatitis. *World*

- J Gastrointest Pharmacol Ther. 2017;8(1):10–25. <https://doi.org/10.4292/wjgpt.v8.i1.10>
4. Agrawal A, McKibbin M. Purtscher's retinopathy: epidemiology, clinical features, and outcome. *Br J Ophthalmol.* 2007;91(11):1456–9. <https://doi.org/10.1136/bjo.2007.117408>
 5. Agrawal A, McKibbin MA. Purtscher's and Purtscher-like retinopathies: a review. *Surv Ophthalmol.* 2006;51(2):129–36. <https://doi.org/10.1016/j.survophthal.2005.12.003>

Summary of the case

1	Patient (gender, age)	39 years, Male
2	Final diagnosis	Acute pancreatitis with Purtscher's retinopathy
3	Symptoms	Abdomen pain, loss of vision
4	Medications	Opioid painkillers, IV fluids, topical steroid eye drops
5	Clinical procedure	None
6	Specialty	Gastroenterology, Ophthalmology