

## A Case Report Of Cannabis Induced Pancreatitis

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### Abstract

Pancreatitis is a common disease with many well-known etiologies. With the universally increasing consumption of cannabis, the incidence of cannabinoid-induced acute pancreatitis is projected to increase. The role of marijuana in pancreatitis is not clearly defined. Studies have begun to clarify the role that cannabinoids may play in this disease process. This case demonstrates the need for further research.

**Keywords:** -Pancreas; Pancreatitis

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### I. Introduction:-

Cannabis (cannabinoid) induced pancreatitis is a rare finding, with the universally increasing consumption of cannabis, the incidence of cannabinoid-induced acute pancreatitis is projected to increase. Patients present with symptoms of acute pancreatitis, including the history of illicit drug use, become essential in the determination of underlying etiology, more reliable prognosis, and allow the prevention of future recurrences.[1]

Cannabis remains one of the most commonly abused illicit drugs around the world.

### II. Case Report:-

22-year-old male cook by occupation presented with abdominal pain for two days epigastric and periumbilical radiating to back. Associated with epigastric burning sensation and vomiting 4 episodes over 2 days nonprojectile/nonbile stained contained food particles.

Patient denies alcohol/smoking cigarettes, gives H/O using cannabis 2-3 joints (0.6 to 1.5 grams) daily for the past 9 months. No other significant medical history.

On physical examination, the patient's abdomen was distended and diffusely tender. His bowel sounds were reduced. On general examination, the patient had suicidal cut marks in the left wrist, and the skin was dry. Heart rate of 120 bpm, blood pressure 110/70 mm hg, temperature 99.6 F, respiratory rate 24/min, weight 65 kgs. Investigations showed blood routine showed leucocytosis with neutrophilic predominance. Renal, liver function, lipids and electrolytes were normal, with the exception of hypocalcemia. Serum amylase and lipase were elevated and four times the upper limits. Hepatitis serology for B, C and A was negative. USG abdomen - no gallstones and edematous pancreatic body and head with peripancreatic fluid collection. CECT abdomen features consistent with acute pancreatitis with the CT severity index of 4. The patient had prolonged prothrombin time. Urine toxicology tested positive for 9-THC (TETRA HYDROCANNABINOL). Diagnosed as Cannabis induced acute pancreatitis, Cannabis abuse/behavioral problem.

Treatment given the patient was treated with appropriate antibiotics, intravenous fluids, analgesics, and sedation got better from day 3 of admission and discharged on day 7. Psychiatric consultation was done and motivation enhancement therapy is given and was started on antipsychotics on discharge in view of the past history of parasuicide.

### III. Discussion:-

A clinical diagnosis of acute pancreatitis is generally established when two or more of the following criteria are applicable. Abdominal pain: acute, severe, and persistent epigastric or periumbilical pain, usually with radiation to the back. Elevated serum amylase and/or lipase activity: at least three times higher than the upper

limit of normal. Evidence of acute pancreatitis on imaging, usually contrast-enhanced CT of the abdomen. Other imaging modalities can be MRI abdomen or transabdominal ultrasonography. If the patient meets the first criteria, and serum amylase and lipase are moderately elevated, radiologic studies may be performed to aid in confirming the diagnosis. Although approximately 2% of acute pancreatitis is drug-induced, the exact incidence of cannabinoid caused pancreatitis has not been well established, a handful of related case reports have surfaced over the last few years [4] and increase in marijuana utilization is likely to escalate marijuana-induced pancreatitis. The inquiries of likely pathophysiologic mechanisms also remain unresolved; although, the phenomenon is more closely associated with chronic marijuana utilization. Cannabinoid receptors, CB1 and CB2, have been identified in the pancreas. Acute pancreatitis is predicted to occur due to chronic marijuana exposure to CB1 receptors. While cessation of marijuana utilization is an effective preventative mechanism specific to marijuana-induced pancreatitis, it shares joint clinical presentation with alternative acute pancreatitis etiologies. Due to limited evidence, other causes of acute pancreatitis should be sought and explored prior to interpreting marijuana as the possible culprit for acute pancreatitis. [2] Treatment with anandamide prior to induction of pancreatitis aggravated pancreatic damage, while its administration after induction of pancreatitis reduced the severity of the disease. It is important to note that in all reported cases of cannabis-induced acute pancreatitis excessive cannabis use was reported. [5-15]

#### IV. Conclusion:-

Cannabinoid induced acute pancreatitis is increasingly becoming most common. However, further clinical research is indicated for enhanced comprehension of acute pancreatitis. The goal of this article is to increase awareness among health-care providers regarding cannabinoid-induced pancreatitis. A comprehensive review should include a history of drug abuse; and management should involve thorough counseling on avoiding marijuana and potential adverse effects, including acute pancreatitis.

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