Study relationship of pancreatobiliary system in opium addicted patients by endoscopic ultrasonography

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Disclose any COI (Conflict of Interest)

- Nothing

Learning objectives and/or the stated purpose

The aim of the present study was to report the endoscopic ultrasound (EUS) features of pancreato-biliary system in opium addicts presenting with abdominal pain.

To differentiate opium-induced CBD dilation from periampullary tumors and chronic pancreatitis.

Introduction

- Ultrasonography is the primary imaging modality for assessing the bile ducts. Common Bile Duct (CBD) dilation may have various etiologies, including CBD stones, tumor of the pancreatic head, tumors of the ampulla of Vater, masses, and enlargement of the hilar lymph nodes in the liver.

- Opium was originally used for medical purposes, whereas today, it is being widely abused in many countries including Iran. Addiction, which is associated with various health hazards for abusers.

- Pathologic dilatation of CBD may be caused by mechanical obstruction or opioid consumption; the latter is particularly common among chronic opium abusers social problem for many years

Experimental Design

- A total of 126 patients without any pancreatobiliary disease or symptom during 10 months were enrolled in this study.
- Common bile duct (CBD), pancreatic duct (PD) and portal vein (PV) diameters, gallbladder wall thickness and surface area of the papilla and abnormalities were evaluated in both groups by endosonography.

Results

- In total, 126 patients were evaluated. 36 (18.1%) cases were addicted to opium.
- Mean age of the patients was 52.6 years. On EUS CBD was dilated in all the patients while PD was dilated in 56 patients.
- Gall bladder, liver and pancreatic parenchyma was normal in all these patients.
- Surface area of papilla of Vater (SPV) was increased in 89 patients.

Results continues

- Opium users had a statistically significant higher (all $P < 0.001$) mean diameters of distal CBD (4.6 ± 1.9 vs. 3.1 ± 1.0 mm), middle part of CBD (7.5 ± 3.1 vs. 4.6 ± 1.6 mm), PD in head (3.3 ± 1.3 vs. 2.3 ± 0.7 mm) and PV (10.3 ± 2.3 vs. 8.9 ± 2.1 mm).
- The size of the papilla as measured by the surface area of the papilla of Vater was also significantly larger in opium users (40.6 ± 17.1 vs. 29.9 ± 13.5, $P < 0.001$).

Conclusion

- Increase in SPV was a peculiar finding and appears to be as a result of direct effect of opium on ampulla.
- Opium addicted persons have larger diameters of CBD, PV and a larger surface area of the papilla of Vater.
- Dilated PD only in the head of the pancreas might be an important clue to differentiate opium-induced CBD dilation from periampullary tumors and chronic pancreatitis.

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Thank you