

# THE CASE OF AN ASYMPTOMATIC YOUNG WOMAN DIAGNOSED WITH PRIMARY BILIARY CHOLANGITIS AFTER 10 YEARS OF HAVING ABNORMAL LIVER FUNCTION TESTS

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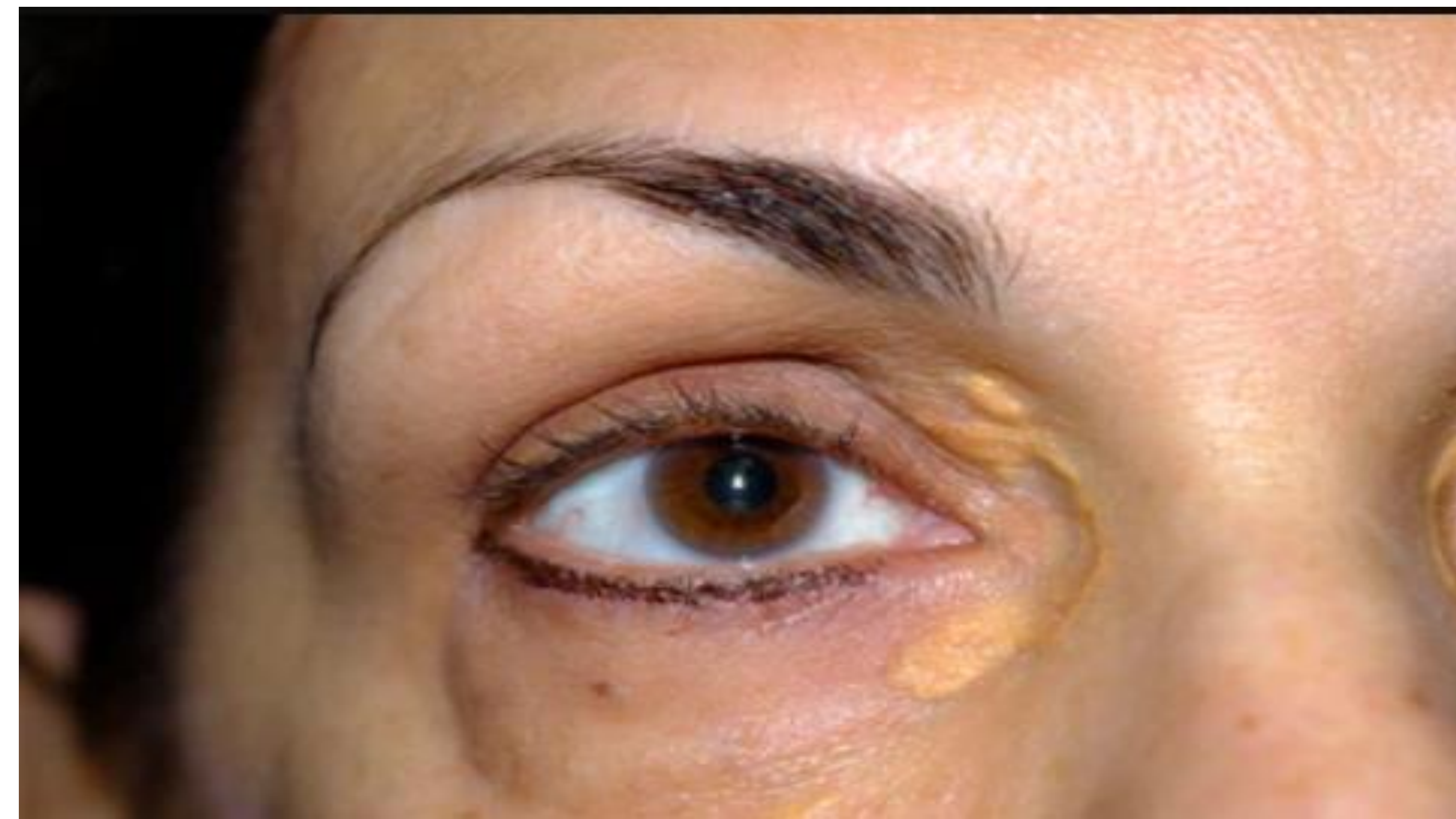
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## INTRODUCTION

- Primary biliary cholangitis (PBC) is a chronic cholestatic liver disease characterized by inflammation and destruction of the small-sized intrahepatic bile ducts.
- Most patients remain asymptomatic and are found to have increased alkaline phosphatase (ALP) during routine lab work.
- The diagnosis of PBC can be established if there is persistently elevated ALP and positive antimitochondrial antibodies (AMA).
- A liver biopsy can confirm the diagnosis

Lab value	Result
AST	54 U/L
ALT	93 U/L
ALP	238 U/L
Total Bilirubin	0.6 MG/DL
HAV, HBV, HCV	Negative
IgG	1726 MG/DL
AMA	1:80
ASMA	1:20

Table 1



Xanthelasma in a patient with PBC

## CASE PRESENTATION

- The patient is a 37-year-old female with a past medical history of attention deficit hyperactivity disorder (ADHD) who was found to have deranged liver function tests (LFTs) during her routine ambulatory visit (Table 1).
- She reported having her liver enzymes checked ten years ago, and it was noted to be abnormal. Was diagnosed with ADHD in the past and started on atomoxetine, which caused severe drug induced liver injury. Atomoxetine was discontinued, and amphetamine/dextroamphetamine was initiated. Her liver enzymes have been baseline elevated.
- A recent abdominal ultrasound (US) was unremarkable. Comprehensive lab work, including HCV FibroSure, revealed positive anti-smooth muscle antibodies (ASMA) titer 1:20 and antimitochondrial antibodies (AMA) titer 1:80, fibrosis score 0.33, fibrosis stage F1-F2, necroinflammatory activity score 0.55, necroinflammatory activity grade A2 moderate activity - suggestive of PBC. The lipid panel was normal except for LDL of 120MG/DL. A liver biopsy was done for staging and confirmation of diagnosis. The results were consistent with PBC, stage 3.
- She was commenced on Ursodeoxycholic acid with significant improvement in her liver enzymes ALP 116, AST 34, ALT 53, and fibrosis.

## DISCUSSION

- The clinical characteristics and progression of PBC ranging from having no symptoms and stable or slowly progressive to symptomatic (fatigue, pruritus, jaundice, xanthomas) and rapidly progressive.
- An elevated serum ALP, along with jaundice or pruritus and cirrhosis of unknown origin, should raise suspicion.
- The diagnosis of PBC can be made if there is persistent (> six months), unexplained elevation of serum ALP (liver origin), and serum AMA titers  $\geq$  1:40.
- In this young patient without presenting symptoms, we demonstrate the need to maintain a thorough differential diagnosis when approaching the workup of liver enzyme derangements. Delaying in the diagnosis of PBC may lead to increased healthcare spending, morbidity, progression of the disease.

## REFERENCES

- Bowlus CL, Gershwin ME. The diagnosis of primary biliary cirrhosis. *Autoimmun Rev.* 2014;13(4-5):441-444. doi:10.1016/j.autrev.2014.01.041
- Kim WR, Lindor KD, Locke GR 3rd, et al. Epidemiology and natural history of primary biliary cirrhosis in a US community. *Gastroenterology.* 2000;119(6):1631-1636. doi:10.1053/gast.2000.20197