PERSISTENTLY ELEVATED INTestinal ALKALINE PHOSPHATASE IN A INDIVIDUAL WITH AB BLOOD GROUP: A RARE PRESENTATION

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INTRODUCTION: Elevated alkaline phosphatase (ALP) is seen in hepatobiliary and bone diseases. However, elevated intestinal ALP has been reported in the literature in association with blood group B or O, whose clinical significance is not known. We present a rare case of persistently elevated intestinal ALP in an individual with blood group AB.

CASE DESCRIPTION/METHODS: A 56-year-old female presented to our ambulatory clinic to establish health care. Her medical history included peptic ulcer disease and dyslipidemia. She underwent appendectomy in childhood and cholecystectomy around 20 years ago. She denied smoking, alcohol consumption or use of recreational drugs. Family history was significant for type 1 DM in mother and brother. Her only medication included ranitidine. General and systemic examination was normal. Her initial labs were normal except elevated alkaline phosphatase of 359 units/liter. The patient was seen by the gastroenterology team. Further laboratory workup including viral hepatitis, metabolic and autoimmune markers of liver disease were normal. Gamma-glutamyltransferase (GGT), Vitamin D and parathyroid profile were normal. Ultrasound abdomen did not show any significant lesion in the liver or biliary tree. As no evidence of liver disease was noted serumyze electrophoresis of ALP was ordered which showed elevated intestinal ALP fraction of 64% (normal 1–24%). Patient blood group was tested which showed group AB. On further follow up in gastroenterology clinic persistently elevated ALP noted.

DISCUSSION: Elevated intestinal alkaline phosphatase has been reported in maintaining of gut hemostasis and elevated levels noted in various pathological conditions of the gastrointestinal tract. Most induced elevation of intestinal ALP has been proposed as a treatment modality to preserve gut hemostasis and minimize inflammation. To the best of our knowledge, our case is an extremely rare presentation of elevated intestinal ALP in an individual with blood group AB. Further molecular and genetic studies in the future may help elaborate functions and therapeutic intervention of intestinal ALP.

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