

## Abdominal Pain in Children with Choledochal Cyst

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### Abstract

Recurrent unexplained Abdominal pain in children is an alert sign and could hide serious diagnosis. That is why it should be taken with concern and doing all appropriate investigation to reach a diagnosis and not only treating symptoms. Our patient had a rare condition - choledochal cyst with the need for surgical intervention.

### Abbreviations

ALT alanine amino transferase,  
AST aspartate amino transferase,  
GGT gamma glutamyl transferase,  
Alk pho alkaline phosphatase,  
MRCP magnetic resonance cholangiopancreatography

### Case Report

8 year old female patient presented to our hospital for the first time 12-26-2022, with her mother, complaining of recurrent episodes of abdominal pain and vomiting for few months, which had been persistent for the

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last 4 days before presentation, associated with dark urine, and vomited once in the hospital.

On examination: she looked average in stature, calm, communicating and does not look in acute distress, however looked tired.

Abdomen was bloated with mild epigastric and right upper quadrant pain without rebound tenderness or rigidity.

She denied: a relationship between the pain episodes and specific food, presence of diarrhea, fever, weight loss or growth reduction.

Examination of other systems were within normal.

Laboratory result: ALT : 266 u/l ( 0-55), AST 253 u/l ( 0-34), GGT = 386 u/l( 5-36 ), alkaline phosphatase = 271 u/l ( < 500 ), amylase = 18 u/l ( 8-51), lipase = 151.83 u/l ( <60 ), bilirubin direct = 0.2 mg / dl ( 0-0.5 ), bilirubin indirect = 0 mg/l ( 0.3-0.7), prothrombin time = 10.6 ( 11.1-14.3), hepatitis A antibodies IgM and IgG = negative, tissue transglutaminase IgA antibodies = negative, anti nuclear antibodies ANA = negative, Epstein bar virus antibodies = negative, TSH thyroid stimulating hormone = 0.57 uIU (0.7-6.4), FT4 free thyroxine 4 = 14.4 pmol/l ( 9.01-19.05), FT3 free thyroxine 3 = 4.6 pmol/l ( 1.58-4.6). WBCs white blood cells, hemoglobin and platelet = within normal, CRP C-reactive protein = 10.7 mg/l (<5), urine showed ketones 2+, normal sodium and potassium.

### **Ultrasound Abdomen:**

- The liver is of normal in size (measuring 110mm) displaying coarse hepatic echotexture and no focal lesions seen.
- Evidence of fusiform cystic dilation of entire extrahepatic bile duct (10 mm width) seen posterior medial to the gall bladder with prominent intrahepatic biliary trees, communication with cystic duct cannot be clearly made out (choledochal cyst).
- The gall bladder is markedly distended.
- The P.V. of normal caliber 8 mm
- The spleen is of normal size measuring 8cm displaying normal echogenicity.
- The pancreatic and para-aortic areas are sonographically free.
- Both kidneys are of normal shape and size appearing well-differentiated with no calculi or back-pressure changes detected.
- The urinary bladder is well-distended displaying normal lumen and wall thickness. No stones, masses detected.
- No ascites.

According to ultrasound results, patient was sent to pediatric hospital - Jalilah - in Dubai for further investigation (MRCP) and MRCP was done and revealed:

Common bile duct is prominent measuring 9mm at the porta with normal distal tapering.

Mild prominence of the right and left hepatic duct (left <right).

Pancreas appears bulky especially the body and tail region with prominent pancreatic duct in the tail region.

No definite mass lesion seen. No sculations or outpouching of the pancreatic duct noted.

Case was diagnosed as choledochal cyst type 1 and surgeon took care of the case.

## Results and Discussion

Laboratory results showed abnormal liver enzymes AST is normal and ALT with elevated GGT and elevated lipase denoting hepatic-pancreatic involvement, while ALK pho supported by ultrasound finding of dilatation of extrahepatic duct and MRCP.

While abdominal pain in kids is a common complaint and in most of the time nothing would be done more than appropriate diet or symptomatic treatment. However, detailed history and thorough physical examination with appropriate apprehension and judgment would lead physician to the necessary investigations [1-5].

## Conclusion

Abdominal pain in children is a complaint that needs prudent approach and implementation of appropriate and necessary investigations to reach the diagnosis and prevent any delay as well as mitigate the disease or cure it if possible.

## Conflict of Interest

I have no financial interest or any conflict of interest exists.

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