Immediate Etiology of Incidental Findings of Dilated Common Bile Duct on Abdominal Images—A Preliminary Study

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Abstract

- Identify patients in which bile duct dilation was incidentally found on imaging but were without any biliary symptomatology or clinical concern for an obstructing process that would normally explain the biliary ductal dilatation on the imaging study.

Introduction

- Dilation of the common bile duct is frequently noted on computed tomography, ultrasound, & magnetic resonance imaging scans
- However, this abnormality is incidentally found in patients without any biliary symptomatology or clinical concern for an obstructing process.
- The etiology of this abnormality in these patients is not well established.

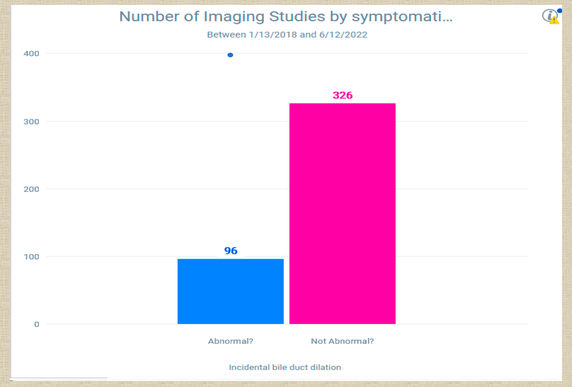

Chart 1. Comparison of the number of patient's that were asymptomatic with abnormal imaging findings vs. symptomatic with abnormal imaging.

Methods and Materials

- In this retrospective analysis, consecutive patients who underwent a CT abdomen, Ultrasound of the abdomen, MRCP, & MRI of the abdomen at a tertiary care health care center from 2018 to 2022 with incidental finding of biliary duct dilation on imaging were retrieved in our radiology department records.
- We evaluated the immediate etiology which could explain bile duct dilation in patients without an obstructing process versus this abnormality in patients with an obstructing process.

Results

- In total, 422 patients were identified.
- Patients with an immediate explanation of bile duct dilation (i.e., prior Cholecystectomy, opioid use, or potential obstructing lesions by elevated total bilirubin) were found in 22.7% (96) of 422.
- Alternatively, patients without an immediate etiology to explain the bile duct dilation were 77.25% (326) of 422, which makes the investigation statistically significant ($P < 0.005$).
- Those patients had repeat abdominal images in 3 to 6 months to further identify non-immediate etiology, we will report those finding separately.

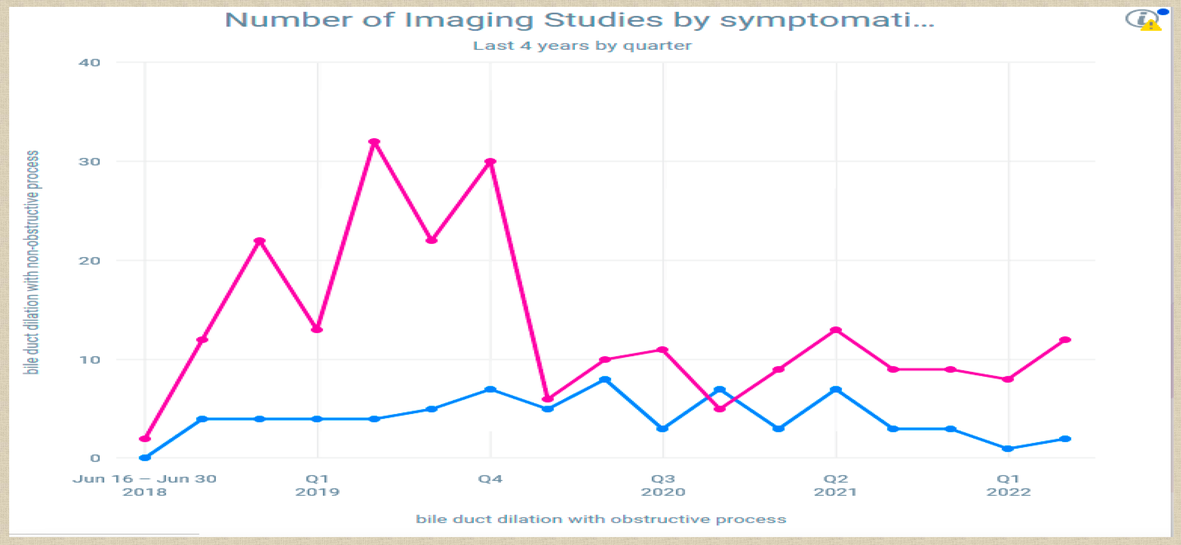

Chart 2. Quarterly analysis comparing the number of patient's that were asymptomatic with abnormal imaging findings vs symptomatic with abnormal imaging.

Conclusions

- Dilation of CBD on computed tomography, ultrasound, & magnetic resonance imaging is suggestive that the etiology of these findings is clinically significant with about 1/4 of patients with an immediate etiology including prior cholecystectomy, narcotic medication use, etc.
- Most patients do not have an immediate etiology and merit further abdominal images for follow up.

References

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