

Case Report: A Rare Cause of Hypoglycemia in a Neonate

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Background

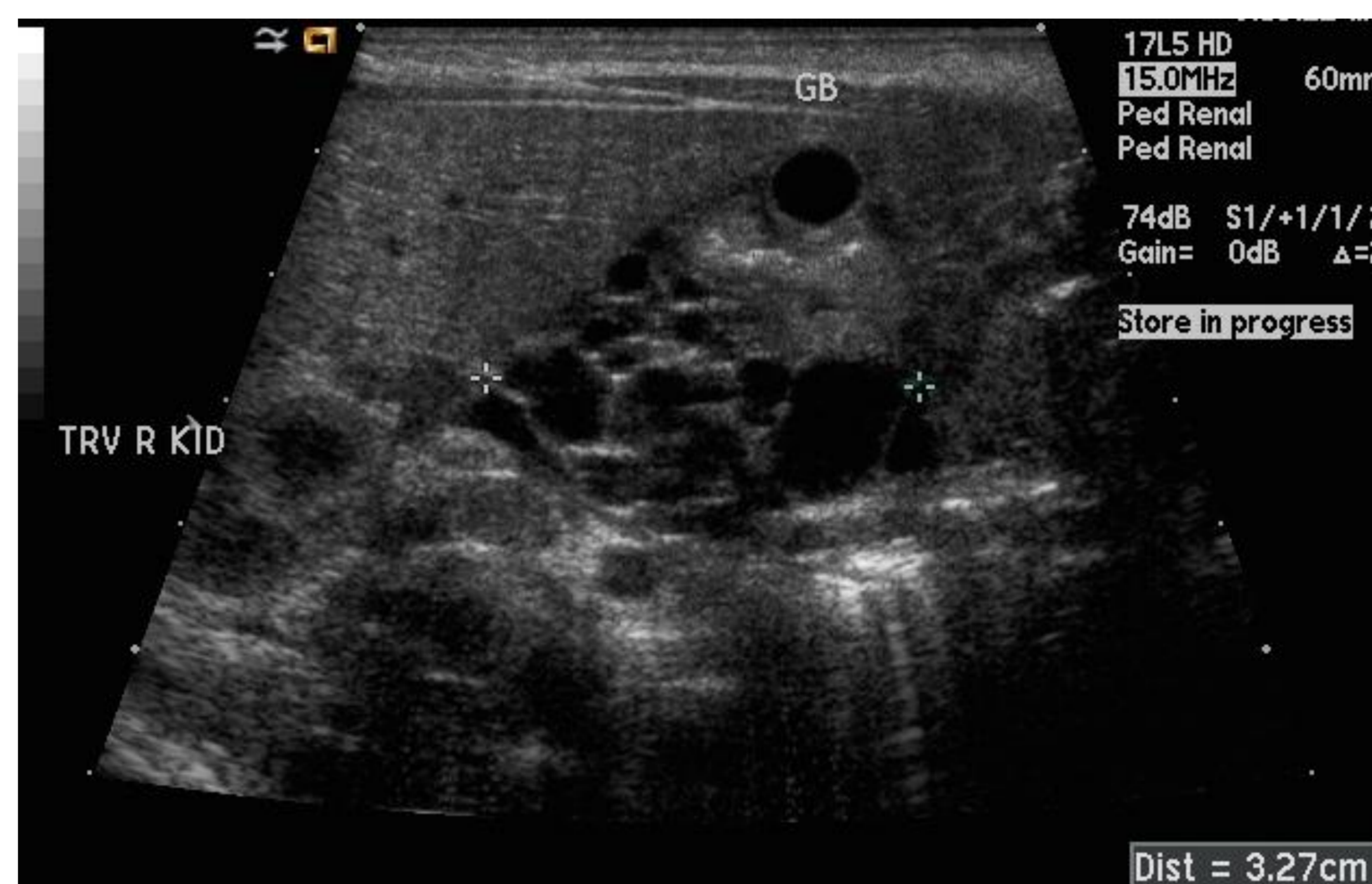
Hypoglycemia in the neonate occurs in approximately one to five per 1,000 live births. Common causes may be due to sepsis, IUGR or LGA. Rarer causes are congenital hyperinsulinism, panhypopituitarism, GHD, cortisol deficiency, insulinoma, insulin-receptor stimulating antibodies, and congenital disorders of glycosylation (McGowan, 1999). We present a case of hypoglycemia in a neonate secondary to intraductal papillary mucinous neoplasm of the pancreas (IPMN). IPMN was first reported by Ohhashi and colleagues in 1982. The majority of IMPNs occur in the sixth to seventh decade of life with rare reports in children.

Objective and Hypotheses

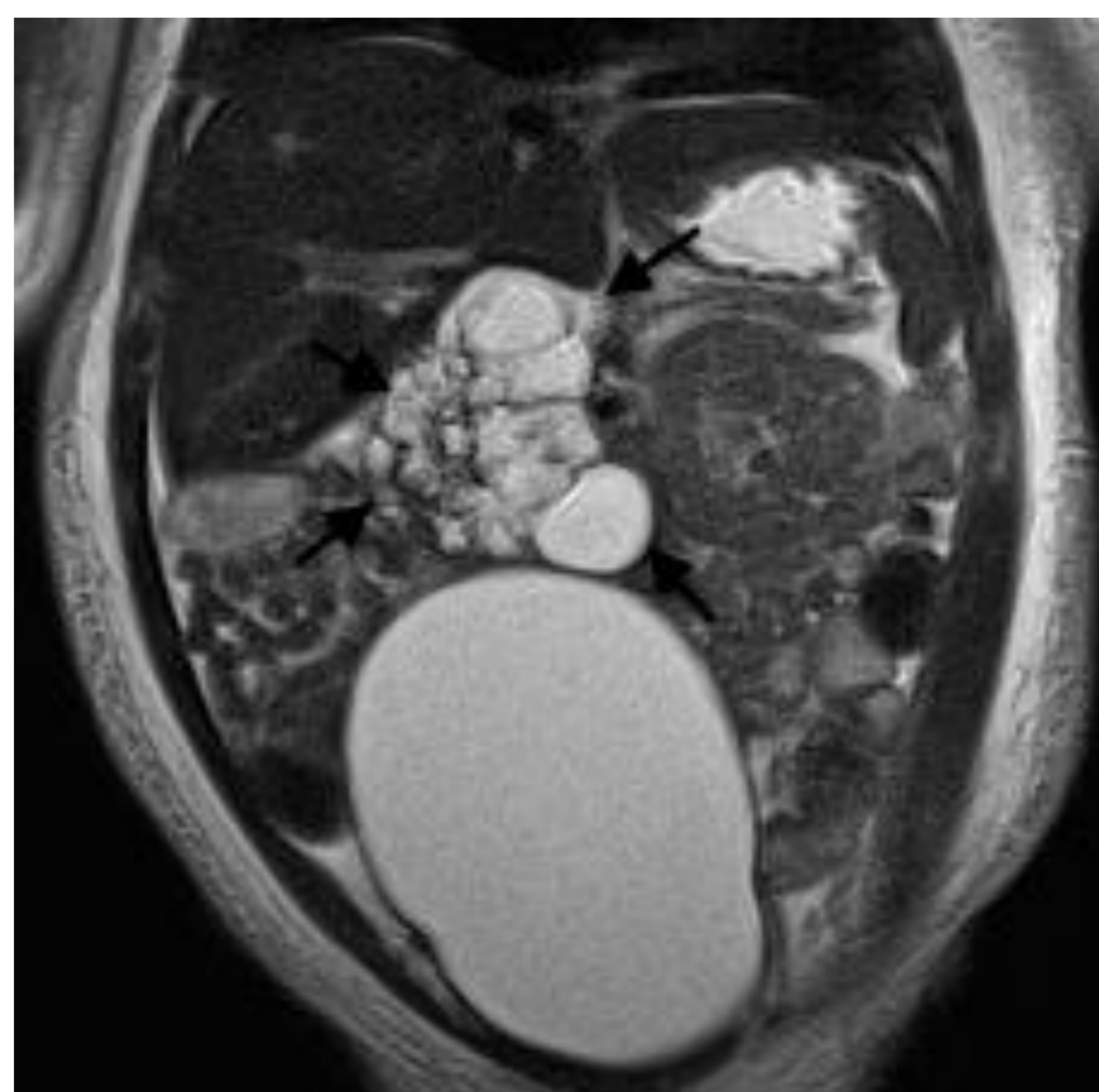
To identify source of seizure of baby presenting to ER with bg of 55. UA revealed many WBC's resulting in US evaluation of kidneys with abdominal mass identified. Our hypothesis was that the seizure may be due to an insulin secreting mass resulting in hypoglycemia. To further confirm this, we evaluated the patient biochemically and obtained more accurate imaging.

Methods

A critical sample was obtained when $bg < 40$ followed by administration of glucagon. A dedicated abdominal US followed by an MRI of the abdomen was obtained



Transverse US view of the abdomen demonstrate a multilocular cystic mass located in the mid abdomen, medial to the right kidney and posterior to the gallbladder.



Coronal MRI images demonstrate a multilocular T2 hyperintense cystic mass in the region of the pancreatic head.

Results

Insulin level at the time of hypoglycemia was 6.9 uIU/ml with bg rise to 93mg/dl within half an hour of glucagon. Abdominal US identified mass as a mixed solid/cystic structure, medial to the right kidney. MRI further delineated a retroperitoneal, multiloculated cystic mass, located in the RUQ of the abdomen appearing to arise from the pancreas. Dimensions were 2.2 cm x 3.7 cm x 3.9 cm. The mass was resected with pathological analysis revealing multiple cystic lesions described as multifocal intraductal papillary mucinous neoplasm with high-grade dysplasia. Insulin immunostain of the tumor was positive.

Conclusion

The final diagnosis was an isolated IPMN with high-grade dysplasia. This is the first known reported case of this diagnosis in a neonate.

References

1. McGowan JE. *Neonatal Hypoglycemia*. *Pediatr Rev*. 1999;20:e6. DOI:10.1542/pir.20-7-e6
2. Ohhashi K, Murakami Y, Murayama M. *Four Cases of "mucin-producing" cancer of the pancreas on specific findings of papilla of Vater*. *Prog Dig Endosc*. 1982; 20:348-351.