

contribute significantly to intensive care hospitalizations in tropical countries, we did not exclude these conditions in order to get a true picture of vitamin D status in intensive care settings.

Most of the children who were vitamin D-deficient were also deficient in calcium. One of the objectives of the study was to characterize vitamin D deficiency status in relation to parathyroid response; therefore we presented data of, only those children who were vitamin D-deficient. We agree with your comment regarding importance of iCa levels in critical illness. It was not feasible to measure iCa in all the patients in our study. Blood samples for laboratory investigations (Calcium, PTH, Vitamin D, etc) were collected at the baseline at the time of admission. Therefore, calcium supplementation in hypocalcemic patients after PICU admission would not alter the laboratory values of calcium, PTH or vitamin D. Children

with hypocalcemia were managed based on the unit protocol, supported by the clinical profile.

Regarding feeding status, most of the children consumed animal milk [local dairy company (28.6%); direct milk from animal sources (24.7%)]. Seven percent of the children were on commercially available formula feeds, 11.7% were on breast feed and 28% of children were on both formula and breast feeds. Those fed on both breast feed and formula were less likely to be vitamin D deficient compared to other types of milk supplementation.

**SATISH K SHAH AND \*RAKESH LODHA**

*Department of Pediatrics, AIIMS, New Delhi, India.*

*\*rakesh\_lodha@hotmail.com*

#### REFERENCE

1. Shah SK, Kabra SK, Gupta N, Pai G, Lodha R. Vitamin D deficiency and parathyroid response in critically ill children. *Indian Pediatr.* 2016;53:479-84.

## Primary Subphrenic Abscess in Infant

A 4½-month-old girl with insignificant past history presented to us with moderate grade fever for last four days. Examination showed an afebrile, hemodynamically stable infant with hepatosplenomegaly and no obvious focus of infection. Blood investigations showed anemia, and negative dengue and malaria serology; the chest X-ray was normal. The fever persisted despite treatment with intravenous antibiotics (Ceftriaxone and Amikacin) for 48 hours. On the fifth day of hospitalization, a repeat blood panel showed leukocytosis, and a blood culture showed methicillin-resistant coagulase negative staphylococci. An ultrasound abdomen showed a right anterior subphrenic abscess. A diagnostic laparoscopy was performed to drain 20 mL of pus from the abscess between the diaphragm and liver. The post-procedure period was uneventful, and the infant recovered completely.

The right subphrenic space lies between the right lobe of the liver and diaphragm, and is one of the potential spaces for collection of pus under the diaphragm. A subphrenic abscess is usually secondary, with the primary disease process having a direct bearing on diagnosis, treatment and prognosis. It is seen most commonly with appendicitis, following hollow viscus perforation, as postoperative sequelae or in abdominal trauma [1]. The clinical manifestations are often obscured and varied,

leading to delayed diagnosis, higher morbidity and mortality. Many of the symptoms and signs together make up a thoraco-abdominal clinical complex [1]. Swinging pyrexia, persistent hiccoughs, lung findings and tenderness on palpation in right hypochondrium are commonly noted. Radiography often reveals elevated hemidiaphragm, blunted costo-diaphragmatic angles and pulmonary infiltrates or atelectasis [2]. The bacteriological profile of these abscesses include aerobic and facultative bacteria like *Escherichia coli*, group D Enterococcus and *Staphylococcus aureus*; and less commonly, anaerobic organisms like Bacteroides [3].

The subphrenic abscess occurs as a primary abscess without a causal lesion in only 4% of cases [1]. The focal lesion in these cases may be primary peritonitis or remote infection with hematogenous spread. Intra-abdominal abscess should be considered early on as a differential diagnosis for any child presenting with unexplained fever, leucocytosis, or poor antibiotic response.

**\*SOUMYA REDDY AND NAVEEN NADIG**

*Department of Pediatrics,*

*Bapuji Child Health Institute and Research Center,*

*Davangere, Karnataka, India.*

*\*sr2390@gmail.com*

#### REFERENCES

1. Konvolinka CW, Olearczyk A. Subphrenic abscess. *Curr Probl Surg.* 1972;1:1-51.
2. Schwab J, Gerber S, Benya E. A subphrenic abscess in a previously healthy child. *Pediatrics.* 1997;99:621-3.
3. Brook I. Intra-abdominal, retroperitoneal and visceral abscesses in children. *Eur J Pediatr Surg.* 2004;14:265-73.