

description of classroom observations and standardized psychometric measures, after ruling out the differential diagnoses. This is the critical point in our view, which needs repeated emphasis, perhaps more than the terminological confusion.

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Genetics-based Risk Stratification of Pediatric Acute Myeloid Leukemia in India

We read with interest a recent paper by Tyagi, *et al.* [1] on cytogenetic profile of Indian children with acute myeloid leukemia (AML). The authors have described outcomes as per ENL classification [2]. They have reported event-free survival (EFS) of <35% in all risk groups [1]. Here we discuss few other Indian studies and our experience focusing on risk stratification and outcomes.

In a study of 51 children, cytogenetics could be done in 21 children (favorable 10, intermediate 4, high-risk 7). EFS was 28.5% (favourable 20%, intermediate 50%, high-risk 20%) [3]. In another study of 65 children with AML, cytogenetics was available in 44 (favourable 18, intermediate 14, high risk 12). EFS was 28% (favourable risk 62%, intermediate risk 30% and high-risk 12.5%). Only two children with high-risk disease underwent matched sibling donor (MSD) hematopoietic stem cell transplant (HSCT) [4]. In another study of 247 patients (favourable 12%, intermediate 70% and high risk 18%), 109 opted for therapy of which 23 were children (4 underwent HSCT for non-favorable AML). Overall survival for children was 70% at median follow up of 7 months [5].

From 2015 to 2018, we diagnosed 24 children with AML, and cytogenetics and molecular genetics could be performed for 21 (favourable 13, intermediate risk 4, high risk 4). Children with acute promyelocytic leukemia (APML) were treated with arsenic and all-trans retinoic acid based therapy. All other children were treated with two courses of 3+7 induction therapy followed by four courses of high-dose cytarabine. Children with intermediate- and high-risk were offered allogeneic HSCT.

In favorable category, all five APML patients are alive and in complete remission (CR) 1; of eight children with *t* (8,21) translocation, five are alive in CR1 (one child with minimal residual disease underwent haploidentical HSCT). Three children relapsed one refused further therapy and remaining 2 underwent MSD HSCT, but both relapsed and died. Ten are alive in CR1 at median follow-up of 26 months. In intermediate risk category, out of four patients, three patients achieved CR1 and one patient died of refractory disease. One patient underwent haploidentical HSCT. One child relapsed and two are alive in CR1. In high-risk category, three patients achieved CR1 and one had refractory disease. One with FLT3-ITD refused HSCT, who relapsed later and died. Remaining three underwent haploidentical HSCT, of whom one with refractory disease relapsed and died. Two are alive in CR1. Overall, 67% children are alive in CR1 at median follow-up of 31 months (favourable 77%, intermediate 50%, high risk 50%). Five underwent HSCT in CR1 based on risk stratification of which four are alive and disease-free.

Our small series highlights that cytogenetic-based risk stratification can help improve outcomes by offering HSCT in non-favorable AML.

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Concerns with Urinary Iodine Excretion Level in a Single Random Sample

The research article published in a recent issue of *Indian Pediatrics* [1] highlighted the success of National Iodine Deficiency Control Program in which universal salt iodization is an integral activity. The investigators found a Total goiter rate (TGR) of 2.08%, median Urinary iodine excretion (UIE) level of 175 µg/L and approximately 72% of subjects were consuming adequately iodized salt. In this study, 'on-the-spot urine' samples were collected from children and on the basis of this UIE level, proportion of children with mild, moderate and severe iodine deficiency were reported.

We submit this interpretation is scientifically not valid due to following:

1. WHO recommends that median UIE level estimated from spot urine samples of individuals in a cluster is for defining iodine status for the cluster/population and is not intended for individuals [2].
2. Defining iodine status at the individual level remains challenging. At least ten spot urine samples or 24-hour urine samples are needed to assess individual iodine status with 20% precision [3]. The spot samples may be collected at any time of the day, except the first morning samples. The random urine samples should be spread over a time frame to cover potential variations. UIE in spot samples varies substantially between days and seasons [4], as a

consequence of a circadian rhythm of iodine excretion [5], and due to differences in fluid intake [6]. Therefore, a single spot UIE is not a suitable indicator for individual assessment. Urinary iodine excretion (UIE) in 24-hour collections is regarded as a better method to reflect an individual's true daily excretion.

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Assessment of Iodine Deficiency Disorders among School Children in Madhya Pradesh

We read an article by Bali, *et al.* [1] and would like to

appreciate the authors for highlighting the current status in their district as well as irregularities of national iodine deficiency control programme (NIDCP). The study also highlights the negative implication of unmonitored universal salt iodization (USI) and emphasize the need for periodic monitoring. However, there are certain points we would like to highlight, which might bring more clarity on this issue: