Controversies in pediatric and adolescent hematology, A.E. Thomas, C. Halsey, editors (Karger, Basel, Switzerland) 2014. 178 pages. Price: US $ 174.00 / CHF 148.00 / EUR 123.00
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Haematological disorders are relatively frequent during childhood and adolescence, and are encountered in both specialist paediatric haematology as well as general practice settings. These are also extremely heterogeneous, and range from common conditions like iron deficiency and immune thrombocytopenia to disorders needing complex and specialized diagnosis and care, like haemophagocytic lymphohistiocytosis in intensive care units (ICUs) and complications like graft-versus-host-disease or secondary malignancies in haematopoietic stem cell transplant (SCT) survivors. Revolutions in technology, in the fields of diagnostics, genomics or drug development, have resulted in an ever-increasing array of new laboratory tests, pharmaceutical agents and treatment modalities including gene-based, personalised and targeted therapies. While this makes paediatric and adolescent haematology a challenging and fascinating field to practice, it also presents a wide range of diagnostic options and challenges to haematopathologists, along with management and treatment dilemmas to paediatric clinical haematologists.

This book, a collection of review articles, although titled 'Controversies', actually examines critically, dispassionately and in minute detail the most cutting-edge advances in the management of paediatric and adolescent haematological problems. Of the 11 chapters, four cover disorders of haemostasis (including neonatal and immune thrombocytopenia, haemophilia and thrombosis in paediatrics); three chapters have been devoted to malignancies (acute lymphoblastic leukaemia, myelodysplastic syndromes and myeloproliferative neoplasms) and SCT; two on disorders of erythropoiesis (iron chelation and iron deficiency) and two on haematological problems in the ICU and transitional care in haematology.

A few more topics that are either important or have lately been in the limelight, like bone marrow failure including congenital dyserythropoietic anaemia, paediatric transfusion practices and childhood lymphomas and allied disorders like the autoimmune lymphoproliferation syndrome could have also been included. However, this is at best a minor objection. Each chapter is preceded by an abstract and closes with a short conclusion section that are both useful previews of the contents for the reader pressed for time.

Of the individual chapters, the chapters, 'New Advances in the Treatment of Children with Hemophilia' and 'Towards Personalised Medicine in Childhood Acute Lymphablastic leukaemia' are eminently absorbing. The former discusses the latest strategies to enhance half-lives of coagulation factors including chemical conjugates, fusion proteins and innovative therapies including DNA aptamers and siRNAs, in this challenging bleeding disorder. The latter splits the field into personalised pharmacology, therapeutic targets and molecular genetics, with the last rubric also covering recent advances such as *IKAROS* gene deletions and *CRLF2* as potential targets.

The discussion of paediatric myelodysplastic syndromes (MDS) and myeloproliferative neoplasms (MPN) is well written. It focuses on the transient abnormal myelopoiesis of Down syndrome, MDS/MPN overlap diseases including juvenile myelomonocytic leukaemia and primary and familial myelodysplasias. A brief mention is made of the pure MPNs, all of which, with the exception of chronic myeloid leukaemia (CML) and essential thrombocythemia, are rare in children. Although the *CSF3R* mutation in atypical CML and chronic neutrophilic leukaemia is mentioned, the major recent discovery of the calreticulin (*CAL-R*) possibly occurred too recently to be included in this chapter.

The chapters on iron chelation potentially replacing stem cell transplants in thalassaemia and on thrombosis in paediatrics are delightful. These truly live up to the

'Controversies' in the title of the compendium. On the other hand, the two lengthy chapters on haematological problems in paediatric intensive care and reduced intensity conditioning in paediatric haematopoietic cell transplantation provide well-researched scholarly insights on inherently complex and difficult topics.

Many chapters discuss quality of life and affordability issues, notably those on ITP (burden of treatment), iron deficiency (costs of oral-versus-intravenous medications) and paediatric thrombosis (various aspects of screening for thrombophilia) and yield important insights into these areas. The last chapter is devoted to the very important issue of transitional care in chronic haematological disorders (haemoglobinopathies, bleeding, cancer) that is often neglected in India due to competing pressures.

In summary, this up-to-date book deals with both specific haematologic disorders in paediatric and adolescent practice and also haematologic perturbations in systemic disease. Aimed squarely at physicians involved in the care of haematology patients, this volume makes for a very interesting and appealing read for busy practitioners as well as final year residents for a comprehensive yet quick update.

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