
Table of Contents

Preface	xi
About the Editors	xiii
1. Blood-Group-Specific Lectins and Polyagglutination: A Brief History	1
<i>Steven R. Pierce, SBB(ASCP)</i>	
Discovery and Early Investigations of Plant Agglutinins	2
Blood Group Specificity	6
Animal Lectins	12
Lectins Useful in Classifying Polyagglutinable Cells	15
Conclusion	19
References	22
2. Acquired Forms of Polyagglutination	29
<i>Gregory R. Halverson, MT(ASCP)SBB, DLM</i>	
T Polyagglutination	30
Tk Polyagglutination	31
Th Polyagglutination	32
Tx Polyagglutination	33
Acquired B	33
Conclusions for Acquired Polyagglutinable States	33
References	35
3. Rare and Inherited Forms of Polyagglutination	39
<i>Gregory R. Halverson, MT(ASCP)SBB, DLM</i>	
VA Polyagglutination	41
NOR	41
Hereditary Erythroblastic Multinuclearity with a Positive Acid Serum (HEMPAS)	41

Polyagglutination: An Update and Review

Tn Polyagglutination	43
Persistent Mixed-Field Polyagglutination	44
Cad Polyagglutination	44
Hyde Park	45
Tr Polyagglutination	46
Syndromes Associated with Inherited Disease	46
Hemolytic Uremic Syndrome	47
References	51
4. The Identification of Tr Polyagglutination	55
<i>Gregory R. Halverson, MT(ASCP)SBB, DLM</i>	
Bernard-Soulier Syndrome with a Vascular Disorder	55
Laboratory Evaluation for Polyagglutination at 6 Years of Age	56
Evaluation for Hemolytic Anemia, Neutropenia, and Recurrent Infections	56
Initial Laboratory Results	58
Results of Agglutination Testing	60
References	61
5. NOR Blood Group Antigen	63
<i>Marcin Czerwiński, PhD, and Radosław Kaczmarek, PhD</i>	
Structure of the NOR Antigen	64
NOR Antibodies	65
Molecular Background	66
The NOR Antigen and the P1PK Blood Group System	67
References	69
6. Transfusion and Clinical Considerations in the Setting of Polyagglutination	73
<i>Laura Cooling, MD, MS</i>	
Acquired Polyagglutination	74
Tn Syndrome	87
Congenital Dyserythropoietic Anemia II (HEMPAS)	90
Other Inherited Polyagglutination Syndromes	94
References	94

Table of Contents

Appendix A. Tetrasaccharide and Paragloboside of Red Cell Membrane Glycoproteins with Modified Structures Expressing T, Tn, and Tk Receptors.....	101
Appendix B. Reported Glycan Selectivity of the 45 Lectins Used in the Microarray Assay	102
Appendix C. Lectin Discoveries	104
Appendix D. The Biosynthetic Pathways of Blood Group A, B, and FORS1 Antigens and Related Glycans	105
Appendix E. Useful Online Resources Related to Polyagglutination.....	106
Index.....	107

