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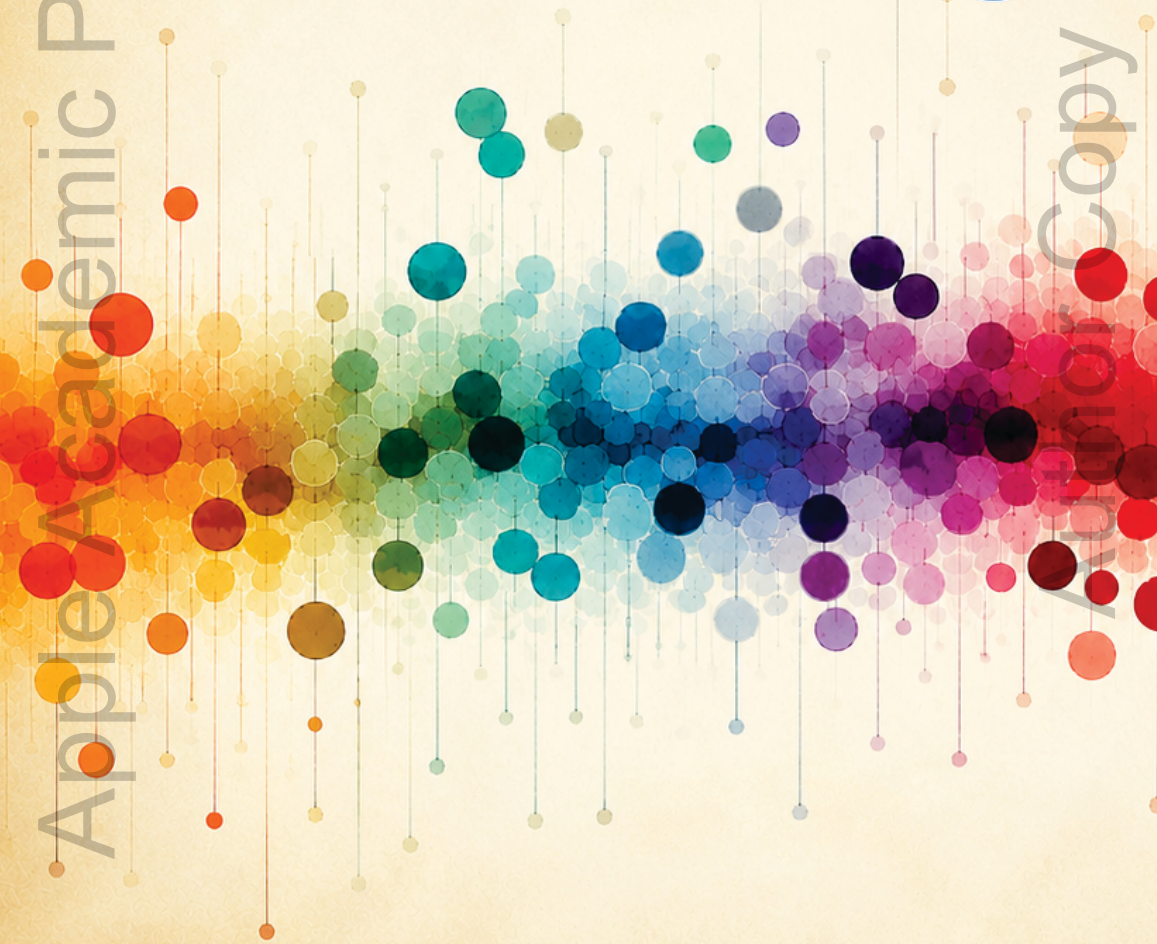

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Contents

CHAPTER 4

Navigating Diabetes Complications and Comorbidities

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ABSTRACT

Diabetes mellitus (DM) is a chronic illness common worldwide. The World Health Organization (WHO) reports about 422 million people living with diabetes globally, causing around 1.5 million deaths annually. Lifestyle and environmental changes contribute to a steady increase in diabetes prevalence. DM can result from either inability to produce insulin (type 1 DM) or responding normally to insulin (type 2 DM), leading to sustained hyperglycemia. Hyperglycemia affects multiple organs including kidneys, heart, liver, eyes, and nervous system. One mechanism underlying secondary complications of hyperglycemia is enhanced lipid-peroxidation and increased production of reactive

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