Hypoglycaemia from Islet Cell Hyperplasia and Nesidioblastosis in a Patient with Type 2 Diabetes Mellitus—A Case Report

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Abstract

Introduction: We report the first case of hypoglycaemia from beta cell hyperplasia with nesidioblastosis in an Asian adult with pre-existing type 2 diabetes. Clinical Picture: A 57-year-old Chinese woman presented with hyperinsulinaemic hypoglycaemia despite discontinuation of oral hypoglycaemic agents 4 months after diagnosis of type 2 diabetes. Preoperative portal venous sampling suggested regionalisation to the neck of the pancreas. Intraoperative ultrasound and palpation of the fully mobilised pancreas were non-localising. Treatment: A subtotal 85% pancreatectomy was performed with success. Outcome: Histology showed no evidence of tumour, but revealed islet hyperplasia and nesidioblastosis. Her diabetes was subsequently well controlled on metformin therapy. Conclusion: Endogenous hyperinsulinism from beta cell hyperplasia with nesidioblastosis may rarely occur in type 2 diabetics. However, this remains a diagnosis of exclusion that is confirmed only on surgical pathology. In affected individuals, preoperative portal venous sampling may be falsely localising, especially if selective sampling of the smaller peri-pancreatic veins is omitted. Definite treatment involves pancreatectomy, although the extent of surgical resection is not well established.

Key words: Diabetes mellitus, Hyperinsulinaemia, Hypoglycaemia, Islet-cell hyperplasia, Nesidioblastosis

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