

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

Y C Kon,<sup>\*MBBS, MRCP</sup>, K C Loh,<sup>\*\*FAMS, FACP, FRCP (Edin)</sup>, S P Chew,<sup>\*\*\*MBBS, FRCS (Edin)</sup>, D Wong,<sup>\*\*\*\*FAMS, MBBS, FRCR</sup>,  
W M Yap,<sup>+FAMS, MPath, MRCPPath</sup>, Y S Lee,<sup>++FAMS, FRCPA, FCAP</sup>, C H Low,<sup>+++FAMS, FRACS, FRCSE</sup>

## 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.

*Ann Acad Med Singapore 2000; 29:682-7*

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

---

\* Registrar

\*\* Consultant

Endocrine Unit

Department of General Medicine

\*\*\* Consultant

+++ Senior Consultant and Head

Department of General Surgery

\*\*\*\* Consultant

Department of Radiology

+ Consultant

Department of Pathology

Tan Tock Seng Hospital

++ Professor and Head

Department of Pathology

National University Hospital

Address for Reprints: Dr Loh Keh Chuan, Endocrine Unit, Department of General Medicine, Tan Tock Seng Hospital, 11 Jalan Tan Tock Seng, Singapore 308433.

E-mail: keh\_chuan\_loh@notes.ttsh.gov.sg