Introduction/Background:

- The prevalence of Diabetes is increasing worldwide and here in the United States. While this is largely due to increased incidence of type 2 diabetes secondary to the twin obesity epidemic the prevalence of type 1 diabetes is also increasing.

- Type 1 diabetes which is primarily insulinopenic in etiology (and often of autoimmune basis) is exclusively managed with insulin hence its older moniker of insulin dependent diabetes mellitus (IDDM).

- Pramlintide (a synthetic analog of the beta cell peptide hormone Symlin) is the only other available treatment adjunct available for management of type 1 diabetes.

- While insulin replacement therapy is the ideal treatment strategy for type 1 diabetes, ideal insulin replacement therapy in type 1 diabetes is often difficult and fraught with the danger of significant hypoglycemia and less commonly the concern of attendant secondary weight gain.

- Inadequate insulin replacement therapy in type 1 diabetes can also result in wide, severe glycemic swings that belie the “brittle” glycemic profile of some patients with type 1 diabetes and may be associated with higher risk for end organ microvascular and possibly macrovascular complications.

- The classification of diabetes types is ongoing considerable evolution in the last few years with recognition of several variants and subtypes that share features of traditional type 1 and type 2 diabetes. Examples include LADA, Flatbush diabetes, Malignutrition related and Ketosis prone diabetes variants.

- The medical literature has virtually no mention of any utility of oral hypoglycemic agents in the glycemic management of type 1 diabetes. We present our clinical experience of the use of selected oral agents in some patients with type 1 diabetes that suggest that further study in this area is warranted.

Methods:

- The Demographic information of all the type 1 diabetic patients managed in the outpatient private clinical practice of the Endocrinology Division of the University of Mississippi Medical Center between July 2007 and July 2010 was obtained through the medical records Department.

- The Endocrinology and Diabetes clinical records for these patients were reviewed and relevant collated in an excel spreadsheet with personal health identifiers removed and the database stored exclusively in password protected secured server drives.

- The data analysis was performed using Microsoft Excel and JMPIn Version 4.0.

Results; Basic demographics

- **Type 1 Diabetic patients on OHAs**

Summary and Conclusions:

The classification of diabetes types and therefore the consequent established norms of treatment methods for diabetes types are not as absolute as previously thought. Variants of diabetes that share features of several classic diabetes types are now widely recognized. This evolution in diabetes classification may have significant implications for established dogma in diabetes therapeutics.

- Some OHAs may have a therapeutic adjunctive role in the management of type 1 diabetes.

- Especially among heavier subjects with significant associated insulin resistance there may be a place for adjunctive metformin use in some type 1 diabetics.

- Adjunctive OHAs in type 1 diabetics may improve glycemic control while reducing overall insulin requirements.

- In some settings adjunctive OHA use in type 1 diabetics could result in reduced frequency and severity of hypoglycemia.

- The potential role of selected OHAs in type 1 diabetes management is a worthwhile subject for further systematic study.

Bibliography and References: