



Diabetes Mellitus

The Text Book Of Hyperbaric Medicine, By Dr K.K. Jain MD

The effect of HBOT has not been studied on experimentally induced Diabetes in Animal but there are reports of this application in Human Patients.

Kakhnovski et al (1980a,b, c.)

noted improvement of cardiovascular complications in Diabetic patient on using HBOT AND LATER (1981) REPORTED HBOT as and adjunct to diet and insulin in the treatment of Moderately severe diabetes in 130 patients. THE DOSAGE of insulin was reduced by 4-38 units in 62.3% of the patients after treatment with HBOT. The authors concluded that hypoglycemic effect of HBOT is due to inhibition of the effect of anti-insulin hormones, Somatotropic and Glucagon, by HBOT. There was also an increased S-peptide secretion and tissue sensitivity due to the correction of the acid base Balance.

Esphtein et al (1988)

Treated 32 male patients with diabetes mellitus using HBOT as a part of a comprehensive management. They found that 10-14 session of HBOT at 1.5-1.7 ATA for 50-60 minutes improved the carbohydrate metabolism, circulation in the lower extremities and general condition of these patients. It was possible to lower the insulin dose in all of these patients. These authors recommended repetition of HBOT courses every 6-8 months. Transient Hyperglycemia is common in patients with cerebrovascular accident and disease. This provides a rationale for the use of HBOT in patients with Stroke and High blood Glucose levels.

The Idea of using HBOT as an adjunct in the treatment of Diabetes is a logical one.

Korbova et al (1981)

Pointed out the high content of Histamine in the blood of pregnant diabetic women may play an important role in the pathogenesis of circulatory Hypoxia Jeopardizing the fetal life due to Hypoxia. They gave HBOT @ 1.2-1.6ATA for 45 minutes. After an initial rise, the histamine value dropped to 37% of the original level after the seventh HBOT session. This fall coincided with a considerable improvement in the patient's condition.