

APPROPRIATE TIMING OF INSULIN ADMINISTRATION IN DIABETICS

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Insulin is often administered after a meal for fear of hypoglycaemia. The endogenous insulin secretion, however, anticipates the post-meal blood glucose rise. A study was therefore conducted to determine the appropriate timing of insulin administration in 9 male Insulin dependent diabetics. The dose of insulin, quantity and type of breakfast were not altered during the 7-day study period. The timing of, insulin administration in relation to the breakfast alone differed from day-to-day: 60 minutes, 45 minutes; 30 minutes and 15 minutes before breakfast on days 1, 2, 3 and 4, respectively: On day 5 insulin was administered at the time of breakfast and on day 6 and 7, 15 and 30 minutes after breakfast. The post-prandial blood glucose level was expressed as increment index in relation to the corresponding FBG. The analysis showed that the mean increment index was -42.10, -8.14, -8.22, -0.82, -0.81, +22.74 and 28.52 when insulin was administered -60, -45, -30, 15, 0, +15 and +30 minutes in relation to the meal timing. Thus, insulin administered before meals, particularly 30-60 minutes before, is most appropriate in controlling the post-prandial Blood Glucose rise.

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