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Audio and Visual Response Time of Type 2 Diabetics and Non-Diabetics

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Abstract

Aim: To study the audio and visual response time of type 2 diabetics and non-diabetics. *Materials & Method:* Thirty type 2 diabetics (age 49±7 years) and thirty non- diabetics (45±5 years) males volunteered to participate in this study as subjects. Response Analyzer was used to measure the audio and visual response times. *Result:* Audio-1 (0.960 ± 0.34ms), Audio-2 (1.043±0.79ms), Audio-3 (1.082±0.86ms), Audio-4 (0.986±0.46ms) and combined auditory response time (1.048±0.57ms) of type 2 diabetics. Audio-1, Audio-2, Audio-3, Audio-4 and combined auditory response time of non-diabetics was 0.841±0.23ms, 0.782±0.35ms, 0.762±0.40ms, 0.793±0.25ms and 0.797±0.17ms respectively. Visual-1 (0.736±0.28ms), Visual-2 (0.653± 0.27ms), Visual-3 (0.649 ± 0.34ms), Visual-4 (0.654± 0.21ms) and combined visual response times (0.679± 0.25ms) of type 2 diabetics and Visual-1, Visual- 2, Visual-3, Visual-4 and combined visual response time of non-diabetics was 0.618 ± 0.14ms, 0.571 ± 0.07ms, 0.604 ± 0.10ms, 0.631 ± 0.14ms, and 0.604 ± 0.07ms respectively. The absolute and percent difference between various audio and visual response time of type 2 diabetic and non-diabetics were statistical significant. *Conclusion:* It was concluded that type 2 diabetics respond slowly to the various audio and visual stimuli as compared to non-diabetics. Thus, auditory and visual response time can be considered as an ideal tool for measuring audio-visual sensory motor association in type 2 diabetics and to highlight the importance of auditory and visual response time testing in routine examination of type 2 diabetics. We can manage the complications of neuropathy in type 2 diabetics which may lead to morbidity in them.

Introduction