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Musculoskeletal pain in newly diagnosed type 2 diabetics in Taiwan : A retrospective cohort study

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OBJECTIVE

The objective of this study was to investigate musculoskeletal pain occurring in newly diagnosed type 2 diabetics in Taiwan between 2001 and 2010. We hoped to estimate incidence rate and occurring region by the actual medical records. The result was provided the evidence of musculoskeletal pain in type 2 diabetics.

RESEARCH DESIGN AND METHODS

The research data was obtained from the Taiwan National Health Insurance Research Database from 2000 to 2010. This study utilized a retrospective cohort method. We recruited 6,586 newly diagnosed type 2 diabetics from 18 to 50 years of age in Taiwan in 2001 as the diabetes subject group, and 32,930 age- and sex-matched controls without diabetes between 2001 and 2010. We tracked the outpatient medical records for musculoskeletal pain from 2001 to 2010 for both groups and according to which, we calculated the incidence and occurring region for musculoskeletal pain and compared the results.

RESULTS

The results showed that patients with diabetes had higher incidence rates as compared to controls for musculoskeletal pain from 2001 to 2010 ($p < 0.05$). The relative risk of musculoskeletal pain occurrence for both groups was the highest (relative risk = 1.33) for patients 31 to 40 years of age; the lowest relative risk (1.17) was seen in patients 41 to 50 years of age, and the relative risk for female patients was always higher than male patients. The most occurring region was the lumbar and back area.

CONCLUSIONS

The study result indicated that patients with diabetes had higher incidence rates as compared to controls for musculoskeletal pain. Therefore, to assess the musculoskeletal pain in type 2 diabetics is necessary, the early intervention will help to maintain ideal physical activity for type 2 diabetes.

Key words: musculoskeletal pain, type 2 diabetics, retrospective cohort study

