Research in Pharmaceutical Sciences, 2012;7(5)
School of Pharmacy and Pharmaceutical Sciences
Isfahan University of Medical Sciences

A survey on insulin technique among Kerman diabetic patients

R. Delgarm[1,*], S. Sohrevardi[2]

[1]The Student Research Committee, Faculty of Pharmacy, Kerman University of Medical Sciences, Kerman, I.R. Iran.
[2]Faculty of pharmacy, Shahid Sadoughi University of Medical Sciences, Yazd, I.R. Iran.

Background and Aims: The efficacy of insulin therapy and patients safety in diabetes depends on correct Injection technique, mixing and keeping insulin. Based on published data there are a lot of diabetic patients around the world who don't have a good knowledge about using insulin. We decided to evaluate the knowledge and attitude of Kerman diabetic patients about their insulin therapy and related adverse effects.
Methods: From January 2012 to May 2012,100 insulin-injecting Type 1 and Type 2 diabetic patients which refered to the diabetes clinic in Bahonar hospital-Kerman were involved the study. Standard questionnaire was developed based on European study and patients filled out forms under supervision. Data were analyzed by SPSS software and Chi square test was used to find differences among questionnaires.
Results: Only 4% of participants were checked injection sites carefully before injection and 64% of participants could not remember when was the last time that they checked injection site . 47.6% of participants used a syringe only once; 38% use it two, three, or four times; 9.5% used it between five and 10 times; and 4.7% used it more than 10 times, until it starts to become painful or another factor intervenes.52% of patients had lipohypertrophy at injection site. 75% of patients didn't know that they can keep open insulin vial at room temperatures until 1 month. Around 85% of patients who use regular and NPH insulin vials didn't know correct shaking and mixing insulin in syringe.
Conclusions: Based on this study patients knowledge and attitude about insulin is not enough. Health professionals such as physician, nurses and pharmacist must teaching proper use of insulin to these patients for proper use of medicine and prevention of adverse drug reactions.

Keywords: Diabetes therapy; Injection; Insulin; Lipohypertrophy