

DPP-4 INHIBITORS INCREASE THE INCIDENCE OF ARTHRITIS/ARTHRALGIA BUT DOES NOT EFFECT OTOIMMUNITY

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In August 2015, United States Food and Drug Administration published a black box declaring that DPP-4 inhibitors may cause severe joint pains. In the present study, we compared the incidence of arthritis/arthralgia in patients with T2DM who were using DPP-4 inhibitors (sitagliptine, vildagliptine and saxagliptine) and who were not using. A second objective of this study is to demonstrate whether there is a real autoimmune inflammatory condition in T2DM patients with arthritis/arthralgia identified. Ninety three DPP-4 inhibitor users and 107 non-users were included into the study. Arthritis/arthralgia were found in 41 of 93 (44.1%) DPP-4 inhibitor users and in 19 of 107 (17.8%) non-users (p0.05). No any inflammatory condition with screening was identified in 27 of 41 (65.9%) patients in DPP-4 inhibitor user group and in 13 of 19 (68.4%) patients in non-user group (p0.05). After adjusting for gender the incidence for arthritis/arthralgia was significantly increased in the DPP-4 inhibitor user group (p value for any DPP-inhibitor 0.05). There was no increase in a real inflammatory condition with DPP-4 inhibitors. There was 3.77 times increased risk for arthritis/arthralgia in the DPP-4 inhibitor using group (p value= 0.001) and this risk increases 2.43 times for each year of DPP-4 inhibitor usage. In conclusion; arthritis/arthralgia were more common among T2DM patients who were using DPP-4 inhibitors compared to non-users, but the seropositivity did not differ between DPP-4 inhibitor users and non-users. Further extensive studies are needed in order to better understand the side effect profile on autoimmunity of this popular medication group.