Background

Sodium-glucose co-transporter 2 (SGLT2) inhibitors are used in patients diagnosed with type-2 diabetes, either alone or in combination with other anti-diabetic drugs. Recently, the Spanish Agency of Medicine and Health Products reported several informative notes warning of serious adverse events caused by these drugs. Furthermore, they are more expensive than the alternatives and the efficacy seems to be lower, it becomes specially important to clarify the risks associated to its use.

Purpose

To evaluate the safety of the treatment with inhibitors of the co-transporter 2 in patients with type-2 diabetes.

Material and methods

A retrospective and observational study was performed in a university hospital. Between January 2017 to August 2018, patients who had active treatment with canagliflozina, empagliflozina or dapagliflozina in their reports of discharge were selected.

Data collected, obtained from medical history records, were: sex, age, drugs reactions, time in treatment, total number of drugs, and which service prescribed the drug. Later, Karch-Lasagna modified algorithm was applied in order to analyse the relationship between treatment and the occurrence of adverse effects.

Results

- Total number patients selected: 110
  - Adverse events: 30
  - Median age: 75
  - Median of the total drugs: 10
- The Karch-Lasagna modified algorithm:
  - Conditional: All gastrointestinal symptoms, ulcers and dryness of mucous membranes. 11 patients with UTIs and 1 amputation.
  - Possible: 4 patients with UTIs and 2 amputation.
- The drugs were prescribed mostly by the internal medicine and cardiology department.
- Treatment after adverse events:
  - Suspended: 9
  - Continued: 16

ADVERSE EVENTS

- UTI
- Non-traumatic amputation of the lower limbs
- Dry mucous membranes
- Ulceration
- Gastrointestinal symptoms

Conclusion

There was a high percentage of patients with adverse drug reactions (22.7%). UTIs and non-traumatic amputation of the lower limbs were adverse events with greater accountability, which coincides with informative notes published. Therefore, the risk-benefit relationship should be closely valued before using SGLT2 inhibitors.