In recent years innovative therapies have been developed for the treatment of hypercholesterolemia that allow an effective decrease in LDL-cholesterol (LDL-c). These are anti-PCSK9 (proprotein convertase subtilisin/kexin type 9) monoclonal antibodies: alirocumab and evolocumab.

The Pharmacy and Therapeutics Commission of our hospital has accepted the following indications: Familial hypercholesterolemia (HF) with LDL-c>100mg/dl with maximum tolerated dose of statins, cardiovascular disease (CVD) established with LDL-c>100mg/dl with maximum tolerated dose of statins and statin intolerant with LDL-c>100mg/dl.

**AIM AND OBJECTIVE**

- Study the correct use of PCSK9 inhibitors in real clinical practice in a third level hospital.
- Evaluate efficacy and adherence to treatment.

**MATERIAL AND METHODS**

- Observational, analytical and retrospective study of patients treated with anti-PCSK9 who were attended in the Pharmacy Service consultation.
- On September 30th 2019 a cross-section was made and the data collected were: sex, prescribed anti-PCSK9, dosage, theoretical and real dispensed units, indication and analytical data at 0 and 12 weeks (total cholesterol (TC), LDL-c, HDL-c, triglycerides (TG)).

**DIAGNOSIS**

- n=82: 53 of them men and 29 of them women
- 57 (69.5%) evolocumab and 25 (30.5%) alirocumab.

The adherent patient has been considered when the MPR is greater than 80%. Only 8.5% of patients are below the established limit, therefore they are non-adherent patients.

*The adherence to treatment has been calculated by an indirect method from the record of dispensations (medication possession rate(MPR) = real/theoretical dispensed units*100).

**After 12 weeks, the mean LDL-c reduction was 54.3%, reaching the LDL-c target <100mg/dl in 89.0% of cases. However, 4.9% of patients experienced an increase in LDL-c levels**

- PCSK9 inhibitors are effective drugs by decreasing LDL-c levels (<100mg/dl). The reduction obtained in our study is similar to that obtained in the pivotal studies.
- The prevalent diagnosis has been uncontrolled CVD with maximum doses of statins. Adherence to treatment is high, however it could be overestimated because it is assumed that the patient takes the medication dispensed.
- More long-term studies of these medications are needed to corroborate the data obtained. In the future it would be interesting to assess whether this reduction in LDL-C is associated with a decrease in cardiovascular events.