Introduction: Eyelashes have both a protective and an aesthetic function. Hypotrichosis of the eyelashes may negatively influence an individual's self-perception.

Objective: To evaluate efficacy and safety of topical administration of a new cosmetic preparation containing 15 Keto Fluprostenol isopropyl ester (80 μgr/ml) for the treatment of idiopathic hypotrichosis of the eyelashes.

Materials and Methods: In this monocentric, double-blind, vehicle-controlled study, forty patients (>18 years) with idiopathic hypotrichosis (GEA 1 or 2), who also exhibit feelings of low confidence, based on the ESQ score, were divided in two groups. Group 1: twenty women treated with once-daily 15 Keto FluprostenoS isopropyl ester gel and Group 2: twenty women treated only with the vehicle gel.

Results
Group 1: the average difference in eyelash length measured at the midpoint of palpebral margins between T0 and T2 for Group 1 was 1.633 mm and for Group B was 0.25 (P < 0.0001). Comparing the ESQ questionnaires of Group 1 and 2 from T0 to T2, only the 80% of the patients of Group 1 declared to dedicate less time to the application of cosmetic mascara, having longer and darker lashes at T2 versus patients of Group 2, of which only 20% reported longer and darker eyelashes at T2.

Conclusion: Our study demonstrates that the application of a new topical treatment containing 15 Keto FluprostenoS isopropyl ester (80 μgr/ml) to the eyelid margin once nightly is safe and well tolerated in subject with hydiopatic hypotrichosis of the eyelashes, with a good tolerability profile suggesting it as a valid alternative for the treatment of hypothricosis of high lashes.