Background: Medical treatment of hirsutism focuses on anti-androgenic hormones. The evidence is sparse for use of metformin in the treatment of hirsutism. Few trials have been conducted with hirsutism as primary end-point. Further, the long-term effects and satisfaction on hirsutism are not reported.

Aim: To obtain a self-assessment of the short- and long-term effect of current multifaceted treatment of hirsutism in women with PCOS.

Methods: The study group consisted of 152 women with PCOS referred with hirsutism to the Department of Gynecology during 2000-2010. All women were treated with metformin. A questionnaire was mailed asking for evaluation of treatment and self-report presence of co-morbidity. Blood samples were collected before treatment with metformin and after two to six months of treatment with metformin.

Results: Testosterone levels decreased in 75% of all 152 women after intake of metformin whereas in 9%, surprisingly, testosterone increased. The follow-up with questionnaire was performed 6 years (mean) after first initial diagnostic visit and 77 (50%) women responded. The 77 responding women received multiple forms of treatment of hirsutism. The effect of treatment and the nuisance by hirsutism were not associated with different forms of treatment. The nuisance before treatment was 7.7± 2.2 on a visual analog scala (VAS) and decreased after treatment to 3.1± 3.1. At follow-up the women rated there nuisance as 2.1 ± 2.8 (p<0.001 after treatment vs. current VAS). The areas of hirsutism did not change from the initial visit to the follow-up.

Conclusions: Our results showed a significant and sustained decrease of nuisance both in the short- as well as in the long-term aspects. The women were highly distressed by their hirsutism and expressed that the treatment was not satisfactory.