

PSYCHOLOGICAL CONSEQUENCES DUE TO HIRSUTISM IN A PATIENT TREATED WITH CYCLOSPORIN

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Background: Immunosuppression is unavoidable for renal graft survival. However, it causes side effects that can compromise the patient's quality of life. A cyclosporin non-common side effect, which occasionally leads to a patient's non-compliance, is hirsutism.

Case: A case of a young male, with ESRD as a result of Alport syndrome are presented. The patient had a renal transplant from his father. Soon after the patient developed heavy hirsutism of the face and body, which had psychological implications. Because of this and despite the good graft function, cyclosporin was converted to tacrolimus three months after the transplantation took place. Hirsutism disappeared and both the mood and behavior of the patient were restored.

Conclusion: Cyclosporin some times cause major psychological problems. The restoration of the patient's psychological health was achieved with the conversion of cyclosporin to tacrolimus without the need of any other kind of intervention apart from supportive psychotherapy. The outcome was satisfactory.

Keywords: Hirsutism, psychological distress, cyclosporin, tacrolimus

Introduction

Immunosuppression is essential for renal graft survival. Currently administered immunosuppression schemes usually include cyclosporin. Cyclosporin has brought about evolution in the prognosis of a patient's and renal graft's survival, but unfortunately it causes many serious side effects. Between the neurotoxic side-effects cyclosporin can induced headaches, rushes, sleep problems, tremor and many more. On the other hand, infection, malignancy, nephrotoxicity, as increased risk for coronary heart disease, liver toxicity, electrolyte disorders, increased blood urate levels, gum hyperplasia and hirsutism are also relatively commons. Physicians pay more attention to the most serious and life threatening side effects, but there are side effects, which although are not life threatening, can compromise the patient's quality of life¹.

Hirsutism belongs to the last group. The incidence of cyclosporin-induced hirsutism in renal graft recipients is about 5%^{2,3}. This side-effect is a reason for a patient's non-compliance especially in female patients groups, with deleterious results in renal graft function. In addition the affects on the patient's psychological status should always been taken into account⁴ because it could affect the social and occupational re- integration of a patient⁵.

Fortunately, the existence of tacrolimus, an efficient immunosuppressive drug that belongs to the same group as cyclosporin, but differs in many side-effects^{2,3}, among them hirsutism, allows the physician in the first stage to deal with this situation.

Case

We will describe the case of a 20 year-old male patient with ESRD as a result of Alport syndrome. After a 5-month period on hemodialysis, the patient had a renal transplant from his

father. At the beginning cyclosporin was included in the immunosuppressive regimen, as usual. Soon the patient developed heavy hirsutism of the face and body (Fig 1), which affected both his mood and his social behavior.



Fig. 1 Face and body cyclosporin induced hirsutism.

The patient refrained from daily activities, became socially isolated and declared that he would stay at home, stopped his education and refused to go out anymore. Because of this, and despite the good graft function, cyclosporin was converted to tacrolimus 3 months after the transplantation. Hirsutism disappeared (Fig 2) and both the mood and behavior of the patient were restored.

Regarding the other side effects, the conversion from cyclosporin to tacrolimus was accompanied with mild neurotoxicity in the form of a fine hand tremor, a side effect

more common when tacrolimus is used instead of cyclosporin^{2,3}. On the other hand the patient's graft function remained normal, blood pressure was restored to normal (from 155/85 mmHg to 120/80 mmHg) and anti-hypertensive drugs (nifedipin 60 mg/d and atenolol 50 mg/d) were withdrawn. There was also a decline in total cholesterol levels (from 280 mg/dl to 195 mg/dl). These two beneficial effects by converting from cyclosporin to tacrolimus were in accordance with the known differences in the side effects caused by these drugs^{2,3}. Conversion did not influence glucose metabolism, which remained normal.



Fig. 2 Hirsutism disappearance after conversion from cyclosporin to tacrolimus.

Discussion

Steroids cause increased skin sensitivity, bruises, acne, truncal obesity, increased hair growth and changes in facial appearance (cushingoid features) in many patients⁶. Common warts may prove disfiguring and sometimes improve when azathioprine is changed to cyclophosphamide⁷.

Cyclosporine causes hirsutism, gingival hyperplasia, and facial acne. A frequent side effect of tacrolimus is hair-loss⁶. Patients must be informed preoperatively about these side effects of immunosuppressant medication and books or sites (e.g. United Network for Organ Sharing⁸ ughly refer to them. Cyclosporin caused major psychological problems to our patient because of hirsutism. Changes in the body's appearance due to immunosuppressant medication distress the recipients.

Research concerning the effects of transplantation on the body's appearance is marginalized. De Geest & Moons⁹ consider relevant subjects as the blind spot in the quality-of-life assessments in transplant recipients: "Some side-effects had little or no direct effect on morbidity and mortality yet can be perceived by transplanted patients as extremely disturbing"⁹. Although the interest about the effects of transplantations on the body's image was one of the first fields of organ-transplant psychiatry, it rapidly decreased. The field is limited in the presentation of clinical cases and research is in its infancy.

Simmons et al. (1977/1987)¹⁰ in their classical book seriously looked upon the pharmaceutical effects regarding a patient's appearance. According to the researchers "patients who are dissatisfied with their appearance are psychologically vulnerable"⁶. The death of an adolescent is presented as a consequence of the interruption of immunosuppressant treatment, because she could not accept her post-surgical appearance.

Surman¹¹ described the loss of the graft due to depression and interruption of the immunosuppressants, because the patient couldn't bear her post-surgical appearance anymore. Elsewhere⁷, he stressed the relationship between cosmetic complications of the immunosuppressants and non-compliance, especially in young patients. In the bibliography, occasionally similar remarks are presented concerning the relationship of the changes in appearance and its consequences (teasing and social rejection) with suicidal ideation, non-compliance and mental disorders^{6,12,13}.

Nurses transplant/coordinators have reported the changes in appearance as one of the major problems in the recipients' quality-of-life^{14,15}.

Concerning increased hair growth in particular, it is worth mentioning that male adolescents become distressed as well. However, it could simply be regarded as an acceleration of an anticipated and positively colored occurrence, especially for patients whose physical development and the development of the characteristics of their sexuality, may delay¹⁶.

We should note that, although there is no dispute that side-effects affect the body image of the recipients, there side-effects of "the side-effect of immunosuppressants" have monopolized the wider field of changes in the body's image. Changes in appearance are not solely caused by the medication and do not necessarily emerge after the transplantation.

Fortunately, the solution for our patient was simple. The conversion from cyclosporin to tacrolimus led to the disappearance of hirsutism. Although blood pressure and cholesterol levels, were not major problems, they decreased after the above conversion.

From a psychological point of view, the appearance could also be used as a displacement place for anxieties related to their body-image or self-image¹⁶⁻²⁰.

Therefore, physicians should take care not only of the direct life threatening side-effects of immunosuppressive regimen, but also for other side-effects that can compromise the patient's quality of life. Often, an opinion from a colleague of another specialty is very valuable. For our patient, a simple conversion from cyclosporin to tacrolimus was enough to preserve him in the best possible physical and mental status, although time might present the exception to the rule.

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