EVALUATION OF INTRA-PATIENT VARIABILITY OF THE TACROLIMUS PLASMATIC LEVELS IN DIFFERENT PERIODS AFTER LIVER TRANSPLANT

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Purpose

To assess the mean concentration, the intra-patient variability of serum levels of tacrolimus (FKs) and their evolution along different periods after liver transplant.

Material and Methods

Observational retrospective study: January 2015 – minimum post-transplant follow-up of 1 year.

Liver transpl. patients > 18 years old

Material and Methods

Priority: To avoid the acute rejection

To preserve a longer graft survival + Adv. reactions

Mean of tacrolimus plasmatic concentrations

Percentage of values lower than 5 ng/ml (P5)

Coefficient of variation

Area under the concentration-estimated time

Proportion of patients with coefficient of variation superior to 30%

Analized variables

To describe the intra-patient variability was used the coefficient of variation

Therapeutic control is considered inadequate if intra-patient variability is superior to 30 % or the P5 is superior to 20 %.

Results

88 patients

* Range of therapeutic tacrolimus plasmatic levels values is established between 5-20 ng/ml

Tecnically, for each period: 89.8%, 43.5%, 44.7%, 27.9% and 40% patients had poor control of serum levels of tacrolimus.

Mean of serum levels of tacrolimus, P5, AUCd and CV30 observed varied widely among periods, achieving statistical differences for almost all parameters: p<0.001, p<0.001, p=0.002 and p<0.001.

Conclusion

Taking into account the limitation of this study, the early detection of patients with high intra-patient variability or analytical values lower than 5 ng/mL along the different stages of liver post-transplant could justify a greater need for pharmacokinetic monitoring and therapeutic control.