EVALUATION OF INTRA-PATIENT VARIABILITY OF THE TACROLIMUS PLASMATIC LEVELS IN THE DIFFERENT PERIODS OF THE KIDNEY POST-TRANSPLANT

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Purpose

To assess the mean concentration, the intra-patient variability of tacrolimus plasmatic levels and their evolution along the different periods of kidney transplant.

Material and Methods

Observational retrospective study: January 2015 – minimum post-transplant follow-up of 2 years.

Kidney transplanted patients > 18 years old

Induction: 0 – 3 months

Early maintenance (EM): 3 – 6 months

Late maintenance(M): > 6 months

M1: 6-12m **M2**:12-24m **M3**:24-36m

Prevent acute rejection → Prevent cronic rejection + ⬇ Adverse reactions

Analized variables

- Mean of tacrolimus plasmatic concentrations
- Number of blood determinations
- Coefficient of variation
- Percentage of values lower than 5 ng/ml or 7 ng/ml (P5 and P7)
- Area under the concentration-estimated time

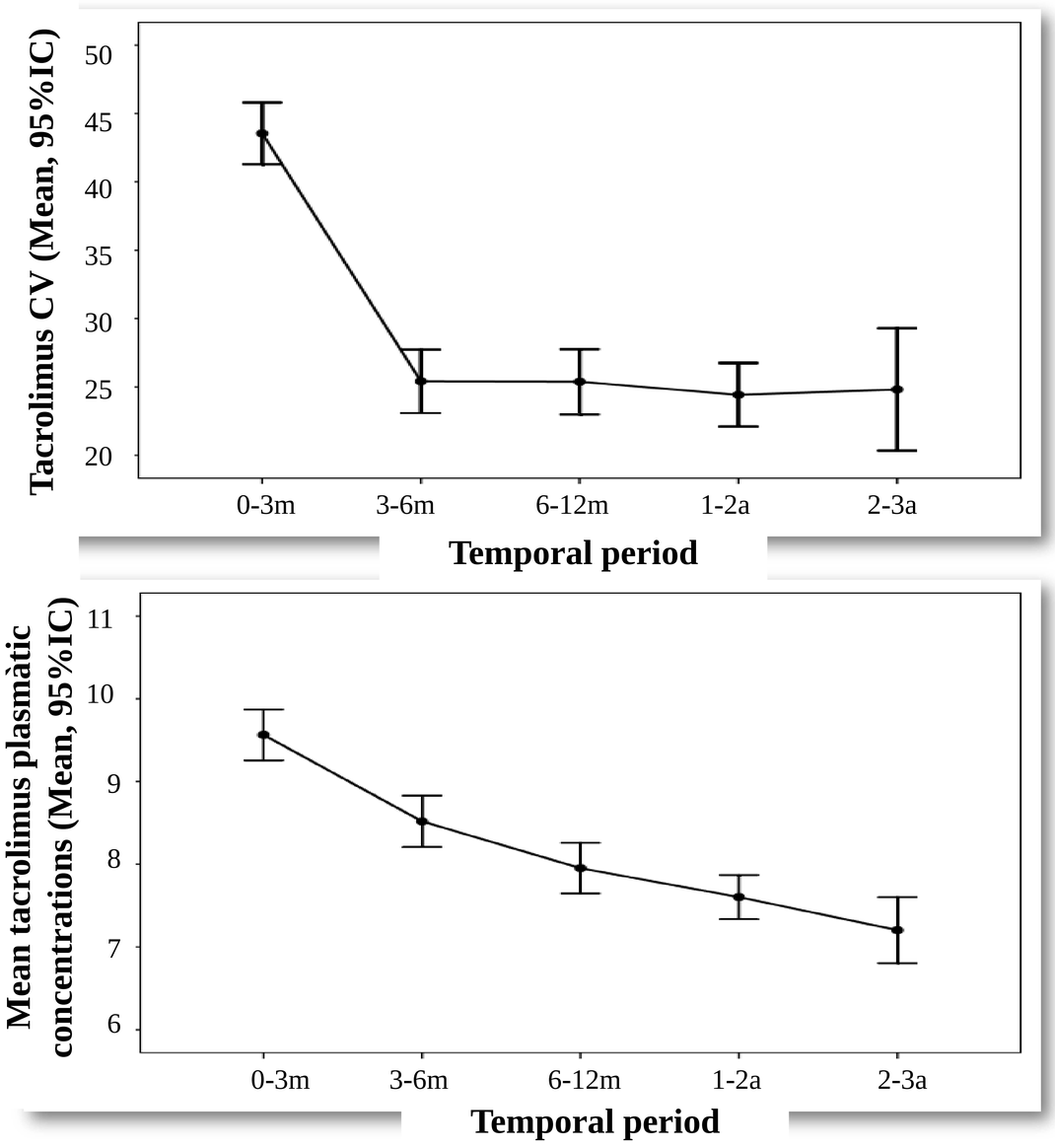
⇨ To describe the intra-patient variability was used the coefficient of variation

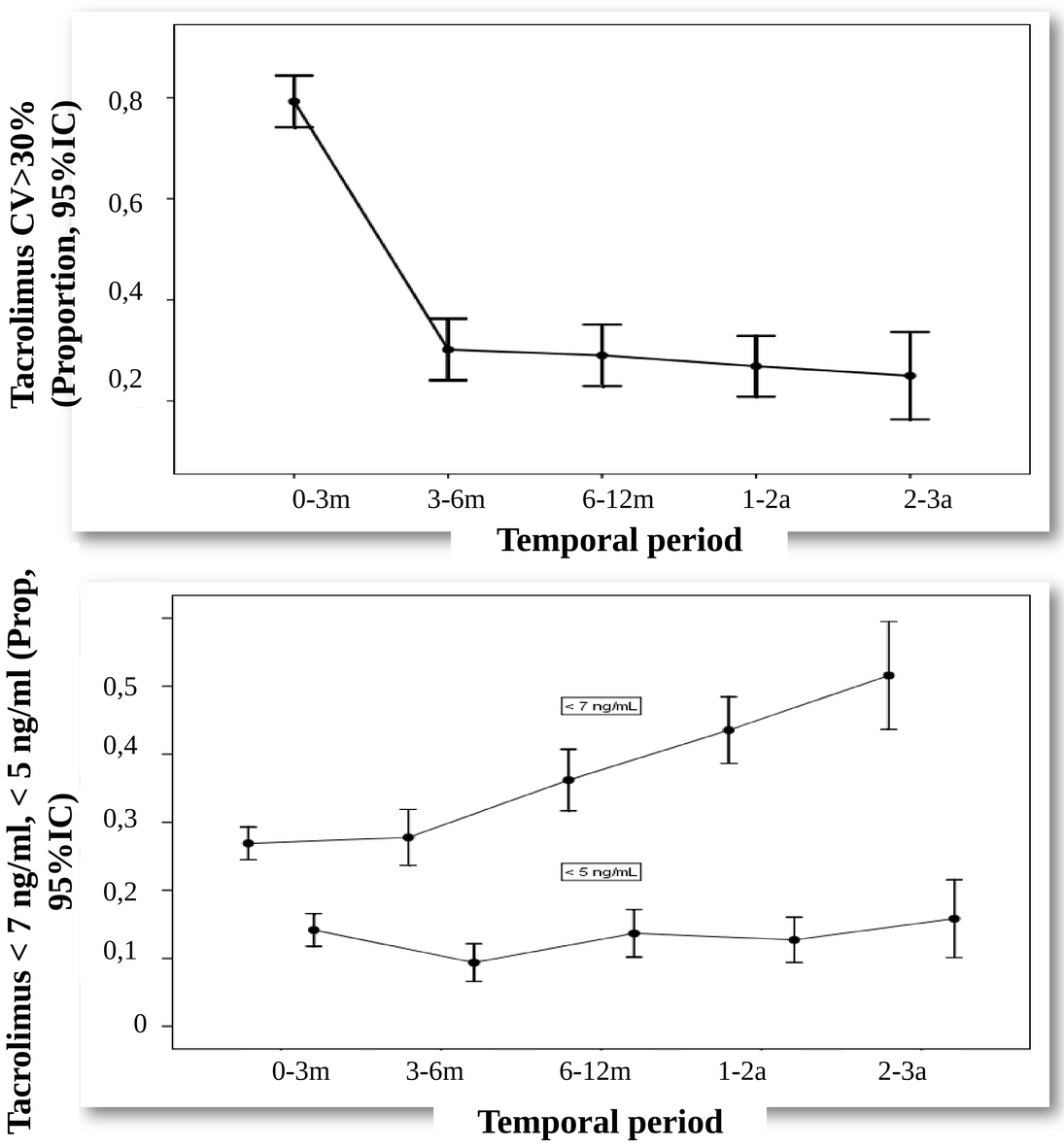
⇨ Therapeutic control is considered inadequate if intra-patient variability is superior to 30 % or the P7 or P5 is superior to 20 %.

Results

212 patients and 4180 tacrolimus blood determinations

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





Conclusion

Tacrolimus plasmatic levels and the intra-patient variability during induction are higher than in early maintenance and late maintenance. However, patients with coefficient of variation superior to 30% remain in the maintenance periods between 29.9% and 31.8%; and with values lower than 5 ng/ml between 9.3 and 13.1% which would justify a greater need for pharmacokinetic monitoring and therapeutic control.