

(X) R1 ( ) R2 ( ) R3 ( ) PG0 ( ) PG1 ( ) Estagiário ( ) Tecnólogo ( ) PIBIC

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Service (sector)

Retina and Vitreous

Nº CEP

**Minimização dos erros na injeção de drogas intravítreas no tratamento da endoftalmite.**

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Purpose: To demonstrate frequent mistakes committed in the injection of intravitreal drugs in the treatment of endophthalmitis and to propose an injection technique that is reproducible and accessible to all ophthalmologist.

Methods: Evaluation of the most used intravitreal injection techniques and gauging the volumes of different needles used of the intravitreal injection, using an analytic scale.

Results: Mean and standard deviation of the residual volumes retained in the needles 13 x 0.45 mm (26 gauge), 25 x 0.7 mm (22 gauge), 30 x 0.7 mm (22 gauge) and 40 x 1.2 mm (18 gauge) are respectively  $0.051 \pm 0.006$ ,  $0.056 \pm 0.005$ ,  $0.055 \pm 0.004$  and  $0.075 \pm 0.004$  for Ryncos® and  $0.050 \pm 0.003$ ,  $0.056 \pm 0.002$ ,  $0.063 \pm 0.002$  and  $0.084 \pm 0.004$  for Becton-Dickinson®. Variations in the residual volume among the two needle brands were not statistically significant for needles 25 x 0.7 mm (22 gauge) only.

Conclusion: The technique intended for the injection of intravitreal drugs is the following one: aspiration of the vitreous with a coupled set of needle and syringe and then, a new puncture to inject vancomycin and amikacin mixed in another coupled set of needle and syringe. (2 punctures).