*Latin American Journal of Pharmacy*
(formerly *Acta Farmacéutica Bonaerense)*
*Lat. Am. J. Pharm.* **38** (3): 553-7 (2019)

Received: September 10, 2018
Revised version: December 26, 2018
Accepted: December 27, 2018

# Effect of Abiraterone on Pharmacokinetics of Cabozantinib in Rats by UPLC-MS/MS

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***SUMMARY*. This study examined whether oral administration of abiraterone to rats with cabozantinib led to any cabozantinib pharmacokinetic interactions. Sixteen rats were divided randomly into 2 groups, cabozantinib group (cabozantinib 30 mg/kg, n = 8), and co-administration group (abiraterone 50 mg/kg and cabozantinib30 mg/kg, n = 8). The concentration of cabozantinib in rat plasma was determined by a sensitive and simple UPLC-MS-MS method. The linear regressions of the peak area ratios versus concentrations were fitted over the concentration range 5-5000 ng/mL for cabozantinib in rat plasma. The recovery for cabozantinib were between 85.0 and 93.0%, the matrix effect were between 96.9 and 104.8% (n = 6). The precision (RSD) were both less than 12%, and the accuracy were between 92.1 and 106.9% (n = 6). There was no statistical pharmacokinetics difference for cabozantinib in the cabozantinib group and co-administration group, the abiraterone could not influence the pharmacokinetic profile of cabozantinib in rats.**

*RESUMEN*. Este estudio examinó si la administración oral de abiraterona a las ratas con cabozantinib da lugar a interacciones farmacocinéticas de cabozantinib. Dieciséis ratas se dividieron al azar en 2 grupos, grupo de cabozantinib (cabozantinib 30 mg/kg, n = 8) y grupo de administración conjunta (abiraterona 50 mg kg y cabozantinib30 mg/kg, n = 8). La concentración de cabozantinib en plasma de rata se determinó mediante un método de UPLC-MS-MS sensible y simple. Las regresiones lineales de las relaciones de área de pico frente a las concentraciones se ajustaron en el rango de concentración de 5-5000 ng/mL para cabozantinib en plasma de rata. La recuperación de cabozantinib estuvo entre 85.0 y 93.0%, el efecto de la matriz estuvo entre 96.9 y 104.8% (n = 6). La precisión (RSD) fue inferior al 12% y la precisión estuvo entre 92.1 y 106.9% (n = 6). No hubo diferencia estadística farmacocinética para cabozantinib en el grupo de cabozantinib y el grupo de administración conjunta; la abiraterona no influyó en el perfil farmacocinético de cabozantinib en ratas.

*KEY WORDS:* abiraterone, cabozantinib, pharmacokinetic, rat, interaction

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ISSN 0326 2383 (printed ed.)
ISSN 2362-3853 (on line ed.)