

Ticagrelor Removal by Hemoadsorption From Human Blood

^aDu Hongyan, ^aKou Xiaoqin, ^aLiang Shuyi

^aGUANGDONG PROVINCIAL KEY LABORATORY OF BLOOD PURIFICATION (INDUSTRY – UNIVERSITY RESEARCH) BASE

Objective

- To explore an accurate method for the detection of ticagrelor in plasma
- Adsorption model construction、Evaluation of adsorption properties

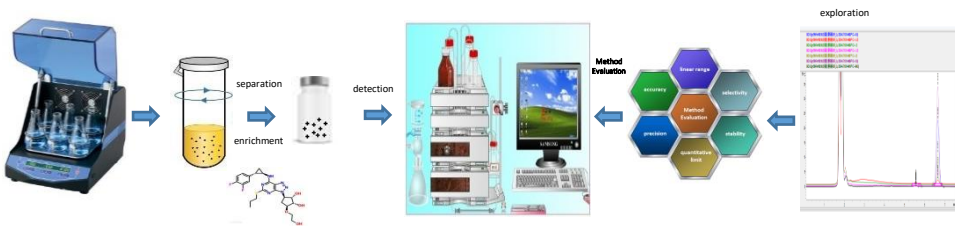
Method

Quantitative determination: Remove protein from plasma、 HPLC quantitative detection.

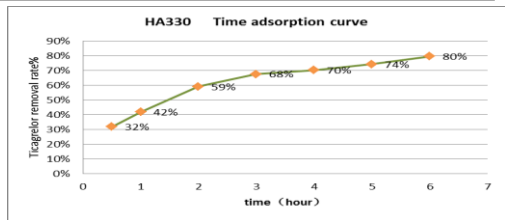
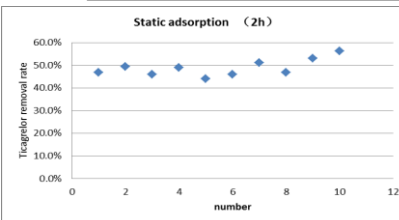
Simulated plasma: Ticagrelor was add to the human blood.

Adsorption model: Adsorbent & plasma constant ratio constant temperature oscillation.

Results



Accurate ticagrelor adsorption and detection system in vitro



Hemoadsorption(HA330) removes ticagrelor from human blood with >80% efficiency in 6 hour.

Conclusion

- HPLC detection of ticagrelor is accurate and suitable.
- Hemoadsorption (HA330) has good removal performance for ticagrelor.
- Hypothesis: HA330 has the clinical application potential of applying load-dose ticagrelor during cardiac surgery and reduce the risk of bleeding.