Transcellular transport of Three kinds of diester Aconitine across human intestinal Caco-2 cells

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Objective:To study the transport behavior in Caco-2 cells of the radix aconitine,mesaconitine and hypaconitine,discusses three kinds of aconitine transport mode.

Methods:The drug concentration was determined by MTT method.The indexes were cumulative transfer amount and the apparent permeability coefficient Papp.The UPLC/Q Exactive MS method was used to detect the composition,study three aconitine that initial concentration was 100ug/ml in both apical-to-basolateral and the reverse direction transport behavior of Caco-2 cells on the model.**Results:**Three kinds of aconitine cumulative transfer amount and incubation time were positive correlation.The cumulative transfer amount of AP-BL side was about 2500ng,BL-AP side cumulative translocation amount was about 6000ng.within 0-150min.And the three kinds of aconitine Papp value had no significant difference.The efflux of AC was more than two-fold that in the opposite direction.**Conclusion:**Results indicated that aconitine,mesaconitine and hypaconitine were mainly passive transporters,and might be involved in efflux protein,and the absorption was good.