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Amphotericin B Plasma Monitoring for One Burn Child Using High-Performance Liquid Chromatography

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***SUMMARY*. A bioanalytical micromethod was described for the quantification of amphotericin B in plasma by HPLC. The method showed high absolute recovery, good linearity (0.1-10.0 μg/mL, $r^2 = 0.999$), sensitivity (limits of quantification: 0.1 μg/mL), and acceptable stability. Inter/intraday precisions were 6.8 %/2.3 % and mean accuracy was 94.3 %. The method was applied to plasma monitoring of one burn child, 3 years old, 25 kg, thermal injury (18 % total burn surface area - TBSA). Amphotericin B (1 mg/kg) was prescribed from 24th to 35th day of the accident and plasma monitoring and pharmacokinetics was performed by serial blood collections on 27th and 35th days post burn. Plasma concentrations obtained were respectively 0.7 μg/mL and 1.2 μg/mL. Pharmacokinetics at both periods (27th *vs* 35th day) also was compared: 13.8 *vs* 14.3 h ($t_{1/2\beta}$); 0.5 *vs* 0.3 mL/min.kg (CL_T) and 0.65 *vs* 0.38 L/kg (Vd^{ss}). In conclusion, drug plasma monitoring by HPLC was quite useful to guarantee low risk and drug efficacy in a paediatric burn patient.**

KEY WORDS: Amphotericin B, Burn child, Drug plasma monitoring, HPLC-UV, Pharmacokinetics.

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