Influence of pharmaceutical adjuvants to obtain capsules containing *Libidibia ferrea* spray dried extract

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Introduction: *Libidibia ferrea* pod exhibit several ethnopharmacological properties and scientific researches have been doing in an effort to evidence hypoglycemic activity. Technological studies performed by Natural Products research group from UFAM guided obtaining a standardized spray dried extract using this kind of plant material. Thus, the aim of this study was to evaluate the influence of pharmaceutical adjuvants to obtain capsules employing *Libidibia ferrea* spray dried extract (LFSDE).

Experimental: The pharmaceutical adjuvants influence was evaluated through a factorial planning $2^2$, which were studied the kind of lubricant (colloidal silicon dioxide and magnesium stearate) and filler (microcrystalline cellulose and lactose). Cellulose casings (size 00) were used for encapsulation. The capsules were obtained by semi-industrial machine encapsulating. The technological parameters evaluated were average weight, disintegration time and dissolution time.

Results/Discussion: The capsules average weight was up to 300 mg. Disintegration maximum time ranged from 14 to 23 minutes. Regarding dissolution time, all capsules were dissolved around 75 minutes. Concerning the sort of classes tested, filler influenced more technological characteristics than others ones (p<0,000). Therefore, with regard to the technological point of view, magnesium stearate and microcrystalline cellulose were the most promising adjuvants to obtain capsules containing LFSDE.

Conclusion: In accordance with outcomes achieved in this present study, the technological characteristics are directly affected depending on the type of adjuvant used in obtaining the capsules. However, further studies should be conducted regarding the optimization technology enabling the production of capsules containing high content of standardized *Libidibia ferrea* spray dried extract.

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