

Letters to the Editor

Lactulose enemas in the treatment of hepatic encephalopathy. Do we help or harm?

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Dear Editor,

The administration of lactulose enemas instead of or in combination with oral lactulose is common practice in patients with hepatic encephalopathy.

Lactulose is a non-absorbable disaccharide that is catabolized by the bacterial flora to short chain fatty acids (e.g., lactic acid and acetic acid) which lower the colonic pH. This pH favors the formation of non-absorbable NH_4^+ from NH_3 , trapping NH_4^+ in the colon and thus reducing plasma ammonia concentrations (1). Lactulose therapy is considered as a first-line treatment and can be administered both orally and rectally (2).

Several authors have highlighted that lactulose enemas can be prepared with 300 ml of lactulose diluted in 700 ml of water (3,4), and the patient should retain this mixture for one hour in the Trendelenburg position. However, once we explored how these enemas are prepared in real practice, we found that a widespread modus operandi is to add lactulose to a bottle of Enema Casen® (= Fleet® enema) (sodium dihydrogen phosphate dihydrate, disodium phosphate dodecahydrate). Thus, lactulose is co-administered with high levels of phosphate.

The reason that may justify this procedure is simple; the prescription does not usually indicate how the enema should be pre-

pared. Moreover, Enema Casen® is widely available in hospitals and one of the few presentations commercialized is in an enema format. Hence, this method of administering is easy and quick.

However, it is important to note that phosphate administration is not risk-free. Phosphate enemas are hypertonic solutions and their retention can lead to a massive absorption of sodium and phosphate in the colon, which can lead to severe electrolyte disturbances.

Therefore, developing strategies to ensure the proper administration of lactulose enemas without compromising patient safety is of paramount importance.

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