

Development of temperature sensitive powder hemostatic agent for endoscopy

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Endoscopic powder hemostatics are one of the hemostatic methods applied to upper gastrointestinal bleeding. The upper gastrointestinal tract includes the esophagus and stomach and duodenum. Upper gastrointestinal bleeding is reported to occur about 100 people per 100,000 people. Although there are various hemostatic methods, the recent hemostatic effect is applied to the bleeding area by spraying powder type hemostatic agent to suppress the bleeding. And research is ongoing. However, currently applied powder-type hemostatic agent is dependent on foreign imports, there is a problem that should be used in conjunction with other hemostatic methods can't be used alone due to the hemostatic effect of less than 24 hours in the action site during hemostasis. Therefore, in this study, the hemostatic agent based on biopolymers such as alginate, CMC, gelatin, etc., having excellent biocompatibility and water absorption, was mixed with poloxamer, a temperature-sensitive polymer having good water resistance and LCST of about 25 °C. Indicative temperature sensitive powder hemostatic agents were prepared and evaluated.