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• 中文摘要	<p>本研究購入台灣北、中、南部市售大黃共 37 件，再以 HPLC 分析檢測其 aloe-emodin, rhein, emodin, chrysophanol, physicon, 及 sennosides A, B 之蒽醌類總含量變化。並且依古法炮製錦紋大黃 <i>Rheum palmatum</i> Linne、藥用大黃 <i>R. officinale</i> Bail.二種品系原藥材，分析其成分變化與抑制一氧化氮產生之作用關係及毒性變化。研究結果顯示：（1）大黃中抑制一氧化氮產生之主成分為 rhein 及 emodin。（2）藥用與錦紋大黃成分最大的差異，在於前者之 sennosides A, B 含量為蒽醌類總含量之 98~99%。（3）市售大黃中蒽醌類總含量分佈在 6582.7~79561.5 ? g/g 之間，經 HPLC 層析指紋圖譜比對結果有 23 件為藥用大黃，14 件為錦紋大黃。（4）分析大黃炮製前後成分變化結果發現：影響強度依序為受熱時間、溫度、輔料及藥材本身所含之成分。而理想的抗發炎作用炮製方法為：潤製以水潤、蒸製以高壓鍋酒蒸、炒製以醋炒等方法，為可提高游離型之蒽醌類含量。錦紋大黃醋潤、酒潤、醋炒後以正己醇萃取，對一氧化氮抑制效果最好，且 rhein 及 emdoin 亦升高。（5）炮製前後之大黃進行餵服 28 天鼯鼠及 TA 100 毒性評估，皆未有統計上顯著之變化。綜合上述：典籍記載大黃炮製後，清熱作用加強及瀉下作用變緩，應該是加工過程 sennosides A, B 降解成游離型蒽醌類，使 rhein 及 emdoin 升高所致。</p>	
• 英文摘要	<p>The 37 kinds of commercial rhubarbs were purchased from Taiwan. The rhizomes of <i>Rheum palmatum</i> Linne and <i>R. officinale</i> Bail were purchased from China as a reference standards. Processing methods for the raw material of rhubarbs were according to the ancient books. The quantitative analysis of anthraquinones (aloe-emodin, rhein, emodin, chrysophanol, physicon, sennosides A, and B) in raw, processed and commercial rhubarbs was performed by HPLC system. The other hand, the anti-inflammatory effects and toxicity of processed rhubarb were compared with raw materials. The results showing: (1) Rhein and emodin stronger inhibited NO release from LPS-induced RAW 264.7 cells than the other anthraquinones. (2)</p>	

High content of sennosides A, B (98~99% of total anthraquinones) in *R. officinale* is a characteristic differ from *R. palmatum* (3) Total anthraquinones content in commercial rhubarbs was 6582.7~79561.5 mg per gram powder. In according to the HPLC fingerprint spectrum, 23 kinds of commercial rhubarbs belong to *R. officinale* and the other 14 specimens were *R. palmatum* unambiguously. (4) The influence factors of the anthraquinones in rhubarbs process were dependent on heat-time, temperature, excipient and species. The best three way to get rich free type anthraquinones content is to soak rhubarb in water, high-pressure steam with 30% EtOH, or stir fire with 5% acetic acid. These processed methods could enhance the anti-inflammation effects of rhubarb. Moreover, n-hexane extract of *R. palmatum*, rich in emodin and rhein content, has stronger anti-inflammation effects. (5) Raw and processed rhubarbs does not showed significant mutagenicity and toxicity in Ames (TA 98) tests and acute oral toxic assay.