Comparison of Antioxidant activities between *Crinum asiaticum* and *Ricinus communis* leaves extracts

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Abstract

Hot Salt-pot Compression is a method of postpartum care that has been widely used in Thai traditional medicine. The method is used for treating several symptoms of women's postpartum such as relief of muscles and uterus pain. *Crinum asiaticum* (CM) leaf is the main component of this method. *Ricinus communis* (RC) leaf is also commonly used in the method instead of CM leaf. Therefore, in this work, it focuses on the comparison of antioxidant activities of the water and ethanolic extracts of *Crinum asiaticum* and *Ricinus communis* leaves. Antioxidant activities were assessed by DPPH (2, 2-diphenyl-1 picryl hydrazyl) and FRAP (ferric reducing antioxidant power) methods. The results demonstrated that the ethanolic extract of RC leaf showed the strongest antioxidant activity by using DPPH and FRAP assays (EC_{50} value of 17.37 µg/mL and FRAP value of 412.66, respectively). While the lowest antioxidant activity was reported for the ethanolic extract of CM (EC_{50} value of > 100 µg/mL and FRAP value of 74.60, respectively). From the findings, extracts from *Ricinus communis* having better antioxidant activity than extracts from *Crinum asiaticum*. However, These methods are fundamental assays which do not clearly indicate antioxidant effect. Thus, these extracts should further investigate for another antioxidant methods.

Image

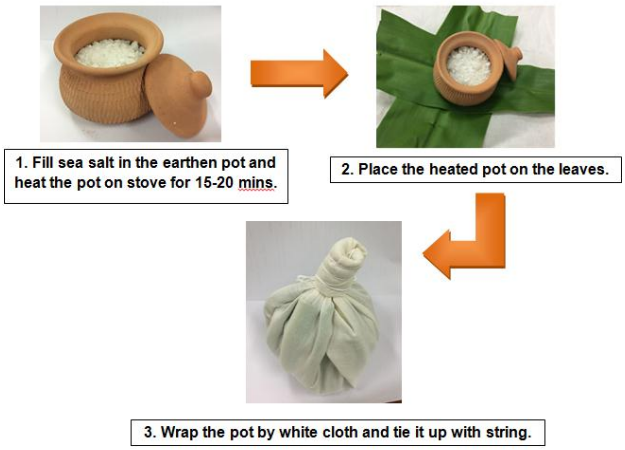


Figure 1: The preparation of Hot Salt-pot

Recent Publications (minimum 5)

1. Chunthorng-Orn J, Dechayont B, Phuaklee P, Prajuabjinda O, Juckmeta T and Itharat A (2016) Cytotoxic, Anti-inflammatory and Antioxidant Activities of *Heliotropium indicum* Extracts. J Med Assoc Thai 99 (Suppl.4):S102-S109.
2. Teptong P, Chunthorng-Orn J, Prachuapjinda O, Ruangnoo S and Itharat A (2012) Comparative Study of antioxidant activity and total phenolic content of ethanolic Extracts of ginger, black pepper and long pepper. 1st Conference on Graduate Student Network of Thailand, Bangkok.
3. Chunthorng-Orn J, Panthong S and Itharat A (2012) Antimicrobial, antioxidant activities and total phenolic content of Thai medicinal plants used to treat HIV patients. J Med Assoc Thai 95 (Suppl.1):S154-S158.
4. Uddin Z, Emran TB, Nath AK, Jenny A, Dutta M, Morshed M and Kawsar H (2012) Anti-Inflammatory and Antioxidant Activity of Leaf extract of Crinum asiaticum. Journal of Pharmacy Research 5(12):5553-5556.
5. Rana M, Dhamija H, Prashar B and Sharma S (2012) *Ricinus communis* L.-A Review. International Journal of Pharm Tech Research 4(4):1706-1711.



Biography

I am interested in Chronic disease by using integrated Thai herbal and Thai massage, including development herbal drug. More recently, my work has focused on prevention, treatment and rehabilitation of musculoskeletal disorders such as osteoarthritis of knee, back pain, frozen shoulder, foot drop, carpal tunnel syndrome, trigger finger and hip pain. In addition, I am interested in postpartum care with Thai traditional medicine.

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Notes/Comment