



Analysis of sennoside in drugs contained senna leaves (*Cassia sp.*) in Iran

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Background and objectives: The importance of *Cassia angustifolia* is due to its laxative properties. A large number of sennosides have been reported in senna but sennoside A and B have been reported as the main causes of its properties. The present study includes the analysis of the effective ingredients of sennosides containing senna products in Iranian pharmaceutical market using UV-Visible and HPLC methods and comparing the obtained amounts with the reported amount of pharmaceutical companies. **Methods:** The content of sennosides as sennoside B was calculated in drugs purchased from the Iran pharmaceutical market. They were extracted using BP method and the concentration of sennosides was measured at the 500 nm. For HPLC method, sennosides were extracted by 0.1% sodium hydrogen carbonate solution and separation was done by C18 (4.6×250 mm) column as the stationary phase and methanol: water: acetic acid as the mobile phase. The diode-array detector was used to monitor the sennosides. **Results:** Maximum and the minimum sennosides for both methods were similar. Maximum of sennosides by UV-visible and HPLC methods were 2.75% and 2.55%, respectively. Minimum of sennosides by UV-visible and HPLC methods were 0.8% and 0.64%, respectively. **Conclusion:** The developed HPLC method was valid for determination of sennosides in senna-containing formulations. Sennosides content by UV-visible method was higher than the HPLC method, because all anthraquinone were calculated by UV but HPLC method separately determines the amount of Sennosides.

Keywords: HPLC, sennoside A, sennoside B