

## Hemostasis property of Malian herbal plant used to manage bleeding event

Diallo Yacouba L

Hospital du Mali, Mali

### Abstract

**Introduction:** Bleeding diseases management is a big challenge in developing countries where diagnosis and drug access are not easy. In Mali 80-90% of the population frequently used medicinal plant with a good response. Unfortunately, knowledge on these plants is undocumented. Here, we investigated ten herbal plants currently used by traditional practitioners in Dioila district (Mali) to treat bleeding conditions. The aim of this study was to investigate the coagulation properties of these plants and identified the substance responsible for different hemostasis properties. **Materials & Methods:** The hemostasis properties of water, ethanol and dichloromethane extracts from ten plants have been investigated. The plants were selected after ethnobotanical survey conducted in Dioila area in Mali. Fifteen traditional practitioners were interviewed in the survey and the ten plants currently used according to their high level of density were retained for this study. The effect of the extracts on hemostasis parameters was investigated using whole blood from healthy donor.

Acarbose is a drug to treat type-2 diabetes mellitus and obesity by inhibiting  $\alpha$ -glucosidase that releases glucose from higher carbohydrates, and therefore its detection is of particular significance from the diagnostic viewpoint. The saccharide sensing results of further interesting approach by an in situ hybrid sensor with Cur and PyPT in Figure 1b and their detailed supramolecular complexation will be discussed. All extracts were incubated with whole blood at the final concentration of 0.25 g/L. Activating platelet time aPTT and thrombin time were measured using coagulation automate (STA satellite®) at 0 and 30 min after incubation. Buffer was used as a control in the same condition. Results were expressed as ratio for aPTT and percentage for thrombin time. All tests were performed in double. **Results:** We have investigated the effect of twelve extracts from ten plants on aPTT and thrombin time at (0 and 30 min) after incubation. aPTT measurement directly after incubation showed that eleven extracts gave a result lower than 1.2. Only extracts from *Pteleopsis myrtifolia* bark and trunk, induced an aPTT beyond 1.2. After 30 min incubation, aPTT value from all extracts was lower than 1.2. In contrast, it seems that prothrombin time was not strongly modified by any extract. **Conclusion:** Some extracts from herbal plants modified aPPT which could be associated to a hemostatic effect. More investigations are needed in order to confirm these findings. ed.