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Influence of Maturity Stage on Nutritional and Therapeutic Potentialities of Solanum anguivi Lam Berries (Gnagnan) Cultivated in CôTe D'Ivoire

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Abstract : Solanum anguivi Lam, collectively called Gnagnan in Côte d'Ivoire is an eggplant with nutritional and therapeutic potentialities more or less known. The present study was undertaken to analyze the biochemical composition of berries at the different stages of maturity. Data showed that at the first stage of maturity (green berries), fruits are rich in ascorbic acid (34.48 ± 1.7 mg / 100 g dm), phenolic compounds (956.7 ± 71.14 mg / 100 g dm), iron (467.7 ± 1.84 mg / 100 g dm), magnesium (404.6 ± 16.25 mg / 100 g dm) and potassium (404.64 ± 16.25 mg/100 g dm). However, at the last stage of maturity (red berries), fruits are rich in proteins, cellulose, total sugars, fat and potassium with the values of 22.53 ± 2 g/100 g dm, 19.12 ± 0.35 g/100 g dm, 3.7 ± 0.2 g/100 g dm, 2.65 ± 0.19 g/100 g dm and 2290.84 ± 22.24 mg / 100 g dm, respectively. The chromatography on thin layer revealed the presence of glucose, ribose, xylose, arabinose and fructose at all the maturity stages. Except for alkaloids and gallic tannins, the phytochemical sorting revealed that Gnagnan contain many pharmacological components. According to the maturity stages, orange and red berries showed a higher content in sterols and polyterpens, flavonoids and saponins. The green berries contain most of polyphenols, catechintannins and quinons. As for the yellow berries, they are rich in polyphenols and catechintannins. These data contribute to enhance clinical researches on nutritional and pharmacological properties of S. anguivi Lam.

Keywords : Gnagnan, maturity stage, chemical composition, chromatography thin layer, phytochemical sorting
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