Dodonaea angustifolia in study belongs to the family sapindaceae distributed in the tropical and subtropical regions of the world. Traditionally this plant is used as an analgesic, laxative, antipyretic, in rheumatism, eczema, and skin ulcers. The most common secondary metabolites of these plants are terpenoids and flavonoids usually deposited on the surface of the leaves, and are known to have antioxidant, antibacterial and antiviral activities. The surface exudes of Dodonaea angustifolia is up to 12% surface exudates and has yielded seven methylated flavonoids and two clerodane terpenoids. The surface exudates showed anti-plasmodial activity with IC50 values of 41.5 3.9 g/ml against chloroquine-sensitive (D6) strain of the P. falciparum. The crude extract did not show good larvicidal activity, against the larvae of Aedes aegypti, as its LC50 value was > 60 μg/ml after 24 hours. Most of the isolated compounds showed moderate anti-plasmodial activity against the D6 strain of Plasmodium falciparum (Table 1.0). Among the compounds tested for larvicidal activity against Aedes aegypti; rhamnocitrin (5) and santin (4) showed good dose dependent activity with an LC50 value of 1.75 and 5.1 g/ml (Table 1.0), respectively, after 24 hours. In this presentation the chemistry, antiplasmodial and mosquito larvicidal activity of some isolated compounds will be discussed.