

Folk Medicine, Pharmacological and Biological Activities

E. spiculatum is known to be poisonous when taken fresh, however on boiling for prolonged time in water, it loses its toxicity. It is used locally as a nutrient after boiling. A toxic protein (molecular weight 1884 dalton) was isolated from the leaves. The protein was shown to be toxic when given to mice orally. The toxic protein was found to decrease significantly the level of cyclic adenosine monophosphate phosphodiesterase, glycogen, and the proteins of liver and muscles. Moreover, there was a significant increase in the levels of serum cholesterol, phospholipids, uric acid and GOT (glutamic-oxaloacetic-transaminase) (Flayeh *et al.*, 1994). The plant was reported to possess insecticidal properties (Al-Farwachi and Al-Badrani, 2013). In Jordan, it is used as an anticancer agent. Luteolin, luteolin-7-*O*-glucoside and vitexin, isolated from the plant, inhibited ADP and collagen-induced platelet aggregation. Luteolin exhibited promising antiproliferative activity towards the tested breast cancer cell lines (Afifi and Abu-Dahab, 2012). Alkaloidal and flavonoidal extracts of the plant showed antibacterial activity against *Escherichia coli* (Al-Younis and Abdullah, 2009). The aqueous leaf extract shows considerable anticoagulant activity in rabbits and has potential to reduce cardiovascular morbidity and mortality (Al-Farwachi and Al-Badrani, 2013). The leaf and stem extracts also exhibited antilipoperoxidative (Janakat and Al-Thnaibat, 2008) and antimicrobial (Obeidat, 2011) activities respectively.