

## ABSTRACT

The effect of *Euclea divinorum* and *Ricinus communis* root bark extracts on isolated gravid and non gravid rabbit uterine strips was investigated in the presence and absence of oxytocin and prostaglandin F<sub>2α</sub>. The uterine strips were exposed to a range of aqueous, ethanol and chloroform extract concentrations (0.5 to 4.0 mg/ml). The contractile response was recorded isometrically on a kymograph+ stimulator. The data was analyzed using ANOVA. P values < 0.05 were considered significant. All uteri exhibited a strong initial contraction following administration of the extracts in a dose dependent manner. Upon recovery the frequency of resumed contractions varied with the plant extract. However chloroform *Euclea divinorum* and *Ricinus communis* extracts exhibited an initial long relaxation phase followed by contractions of the uteri. The result of this study indicates that the herbal extracts cause rabbit uterine myometrial contractions that mimic contractions due to oxytocin. It is tempting to argue that when consumed by pregnant women, the aqueous and ethanol extracts of both plants would augment endogenous oxytocin / prostaglandin effects to cause parturition. The chloroform extract on the other hand seemed to initially have a relaxing effect on the rabbit uterine strips. An effect that is difficult to explain on the basis of the above experiments. It is recommended that further pharmacokinetic and toxicological studies are required to determine the active components, possible mechanism of action, effective and lethal dose levels of the plant extracts. Keywords: *Euclea divinorum*, *Ricinus communis*, augment, oxytocic effect, herbal remedy, labour, prostaglandin F<sub>2α</sub>, oxytocin.