

TABLE 2. ANTIEMETIC EFFECT OF *EMBLICA OFFICINALIS* AQUEOUS EXTRACT, ADMINISTERED ORALLY, ON TEST DOGS.

Group No.	Time between <i>Embllica officinalis</i> and apomorphine administration	Mean body weight kg; \pm S.D.	Dose of <i>Embllica officinalis</i> mg/kg	Experimental animals		Control Animals	
				Emesis +ve	Emesis -ve	Emesis +ve	Emesis -ve
1.	3 hours	14 \pm 0.08	100	4	-	2	-
2.	"	"	200	4	-	2	-
3.	"	"	300	4	-	2	-
4.	"	"	450	1	3	2	-
5.	"	"	500	-	4	2	-
6.	"	"	600	-	4	2	-

* Each group consisted of 6 dogs. Out of these four were test dogs and received *Embllica officinalis* aqueous extract orally while two were control dogs and received only distilled water orally. 0.044 mg/kg body weight of apomorphine was injected subcutaneously to all dogs of each group.

The results in Table 2 showed that oral administration of the aqueous extract of drug to a group of four dogs in doses of 100, 200, and 300 mg/kg body weight caused no antiemetic effect. When the dose was raised to 450 mg/kg antiemetic effect was observed in three dogs while a dose of 500 mg/kg showed antiemetic effect in all the four dogs. Further increase in dose had no appreciable effect.

A comparative assessment of the efficacy of *Embllica officinalis* with the standard drugs (Metoclopramide and Chlorpromazine) was also studied and the results are given in Table 3. It was found that whereas metoclopramide and chlorpromazine in dose of 0.212 and 0.404 mg/kg body weight respectively, antagonizes the emetic stimulus of 0.044 mg/kg body weight of apomorphine given subcutaneously to dogs, the *Embllica officinalis* extract exhibits the same action by administering a comparatively larger dose of 500 mg/kg body weight. Furthermore animals receiving chlorpromazine showed drowsiness, lethargy and dryness of mouth and the animals receiving

metoclopramide showed weakness and hunger while animals receiving *Embllica officinalis* aqueous extract were calm and quite, lying comfortably on the ground. Repeated vomiting (as in morning sickness) causes metabolic alkalosis [7]. As the fruit contains salts, it can make up the salts losses. The fruit is carminative and laxative [8].

Conclusion

Embllica officinalis. dried fruit extract is non-toxic and inhibits emesis induced by apomorphine (Table 2).

References

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TABLE 3. COMPARATIVE ASSESSMENT OF THE ACTION OF *EMBLICA OFFICINALIS* AQUEOUS EXTRACT, METOCLOPRAMIDE AND CHLORPROMAZINE.

*Group No.	Drug	Minimum dose to antagonise the action of 0.044 mg/kg apomorphine	Observation	Results
1.	<i>Embllica officinalis</i> aqueous extract	500	Calm & quite	+Ve
2.	Chlorpromazine	0.404	Drowsiness, lethargy dryness of mouth.	+Ve
3.	Metoclopramide	0.212	Weakness, Hunger.	+Ve

*Each group consisted of 4 dogs, 2 male and 2 female. First group received *Embllica officinalis*, 2nd group received Chlorpromazine and 3rd group received Metoclopramide.