

Supplementary table 1: Natural Ingredients present in amukkara choornam

Medicine		Ingredients	
	Reference	Common name Ingredients	Scientific name of Ingredients
AMUKKARA CHOORNAM	Agaththiyar Vaidhya Raththina Churukkam-360	Indian ginseng	<i>Withania somnifera</i>
		Dry ginger	<i>Zingiber officinale</i>
		Black Pepper	<i>Piper nigrum</i>
		Long Pepper	<i>Piper longum</i>
		Cardamom	<i>Elettaria cardamomum</i>
		Cinnamon	<i>Cinnamomum verum</i>
		Clove	<i>Syzygium aromaticum</i>

Supplementary table 2a: Physiochemical studies of amukkara choornam

S. No.	Parameter	I	II	Mean
1	Loss on Drying at 70°C	9.31g	9.26g	9.28g
2	Total Ash	3.76g	3.83g	3.8g
3	Water soluble Ash	1.8g	1.6g	1.7g
4	Acid insoluble Ash	0.82g	0.98g	0.9g
5	Water soluble Extractive	9.7g	8.3g	9.1g
6	Alcohol Soluble Extractive	11.6g	12.6g	12.1g
7	Ph Value	7.2	7	7.1

Supplementary table 2b: Preliminary phytochemical Analysis of amukkara choornam

Parameter	Characteristics of Amukkara choornam
General Information	
Fluorescence analysis (Day light)	Off white
fluorescence analysis (UV light)	Off white
Odour	Aromatic (herbal)
Taste	Slight bitter
Texture	Smooth powder
Solubility	
Water	Partially
Chloroform	Partially
Methanol	Partially
Ethanol	Partially
Phytochemical	
Phenol	-
Terpenoids	+
Flavonoids	-
Alkaloids	+
Carbohydrates	+
Reducing sugar	+
Glycosides	-
Quinines	-
Proteins	-
Tannins	+
Anthraquinones	-
Steroids	+
Saponin	-

Supplementary table 3: group wise descriptive analysis data for the parameters used to detect the efficacy of amukkara choornam in *invivo* studies

S. No.			G1 (Control)	G2 (Challenged)	G3 (Mock infected with AMC treatment)	G4 (Challenged with AMC treatment)
			16	16	16	16
	No. of values		16	16	16	16
1	Weight of male	Mean	25.34	23.33	25.21	24.44
		Std. Deviation	0.99	2.33	0.9	1.04
		Std. Error of Mean	0.25	0.83	0.22	0.26
		P value (two tailed)WSR	< 0.0001	0.0078	< 0.0001	< 0.0001
2	Weight of female	Mean	20.52	17.96	20.27	20.27
		Std. Deviation	1.51	2	1.27	1.25
		Std. Error of Mean	0.38	0.58	0.31	0.31
		P value (two tailed)WSR	< 0.0001	0.0005	< 0.0001	< 0.0001
3	Temperature of male	Mean	27.98	32.45	27.92	29.72
		Std. Deviation	1.2	1.92	1.16	2.32
		Std. Error of Mean	0.3	0.68	0.29	0.58
		P value (two tailed)WSR	< 0.0001	0.0078	< 0.0001	0.0051
4	Temperature of female	Mean	28.42	30.57	28.1	28.57
		Std. Deviation	1.89	1.58	1.4	1.31
		Std. Error of Mean	0.47	0.45	0.35	0.38
		P value (two tailed)WSR	< 0.0001	0.0005	< 0.0001	< 0.0001
5	Size of right limb male	Mean	2.26	3.1	2.26	2.31
		Std. Deviation	0.04	0.82	0.04	0.08
		Std. Error of Mean	0.01	0.3	0.01	0.02
		P value (two tailed)WSR	< 0.0001	0.0078	< 0.0001	< 0.0001
6	Size of right limb female	Mean	2.16	3.88	2.26	1.98
		Std. Deviation	0.05	1.61	0.04	0.09
		Std. Error of Mean	0.02	0.46	0.01	0.02
		P value (two tailed)WSR	0.0001	0.0005	< 0.0001	< 0.0001
7	Size of left limb male	Mean	2.47	2.94	2.35	2.47
		Std. Deviation	0.17	0.34	0.06	0.17
		Std. Error of Mean	0.04	0.11	0.01	0.04
		P value (two tailed)WSR	< 0.0001	0.0078	< 0.0001	< 0.0001
8	Size of left limb female	Mean	1.98	3.87	1.98	1.98
		Std. Deviation	0.086	1.61	0.09	0.09
		Std. Error of Mean	0.02	0.46	0.02	0.02
		P value (two tailed)WSR	< 0.0001	0.0005	< 0.0001	< 0.0001

Supplementary table 4: ANOVA analysis for the parameters used to detect the efficacy of amukkara choornam in *invivo* studies

Parameters	Uncorrected Fisher's LSD			ANNOVA Statistics		
	G2 vs. G1	G2 vs. G3	G2 vs. G4	Overall P value	R square value	F statistics
Mean wt. of Male	0.0005***	0.001**	0.0443*	0.0019**	0.2473	5.694
Mean wt. of Female	< 0.0001****	0.0002***	0.0002***	0.0001***	0.3079	8.305
Mean temp of Male	< 0.0001****	< 0.0001****	0.0005***	< 0.0001****	0.4826	16.16
Mean temp of Female	0.0006***	0.0001***	0.0014**	0.0006***	0.2647	6.721
Mean size of right limbs in Male	< 0.0001****	< 0.0001****	< 0.0001****	< 0.0001****	0.4864	16.41
Mean size of right limbs in Female	< 0.0001****	< 0.0001****	0.0001****	0.0001****	0.5022	18.84
Mean size of left limbs in Male	< 0.0001****	< 0.0001****	< 0.0001****	< 0.0001****	0.5278	19.38
Mean size of left limbs in Female	< 0.0001****	< 0.0001****	< 0.0001****	< 0.0001****	0.546	22.45