

## Tables

**Table 1.** Mice treated with different concentrations of NMDA and aloe-emodin

	1	2	3	4	5
NMDA ( $\mu\text{g}/\text{mouse}$ )	0	20	0	20	20
aloe-emodin ( $\mu\text{g}/\text{mouse}$ )	0	0	20	20	10



**Table 2.** Distribution of the E-CDH gene 3'-UTR C/T polymorphism between healthy control subjects and POAG patients

		CC	CT	TT	C(%)	T(%)
	Control group	5	88	10	47.6	52.4
	POAG patients	41	18	1	83.3	16.7
Odds ratio (95% CI)	Unadjusted	82.0*	2.04	1	29.4* (11.1-78.1)	
	Age-adjusted	88.2*	1.7	1	36.1* (12.3-105.3)	

CI denotes confidence interval, \* $p < 0.05$

**Table 3a** Distribution of eNOS intron 4 gene polymorphism between the healthy control subjects and POAG patients

	Glaucoma	Normal	Total
	Total: 66	Total: 100	
Genotype			
a-deletion	0 (0)	0 (0)	
a-deletion/b-insertion	10 (15.4)	17 (17)	
b-insertion	56 (84.6)	83 (83)	
Total	66	100	166

Fisher' exact test:  $p=0.481$  ( $>0.05$ )

**Table 3b** The allelic frequencies of eNOS intron 4 in healthy subjects and POAG patients

Allelic frequency			Total
Allele a-deletion	10 (7.7)	17 (8.5)	
Allele b-insertion	122 (92.3)	183 (91.5)	
Total	132	200	332

Fisher' exact test:  $p=0.483 (>0.05)$

**Table 4a** Distribution of eNOS promoter-786 gene polymorphism between the healthy control subjects and POAG patients

	Glacuoma	Normal	Total
	Total: 66(%)	Total: 100 (%)	
Genotype			
T/T	55 (83.3)	84 (82.9)	
T/C	11 (16.7)	16 (17.1)	
C/C	0 (0)	0 (0)	
Total	66	100	166

Fisher' exact test:  $p=0.555 (>0.05)$

**Table 4b** The allelic frequencies of eNOS promoter -786 in healthy subjects and POAG patients

Allelic frequency			Total	p
Allele T	121 (91.7)	184 (91.4)		
Allele C	11 (8.3)	16 (8.6)		
Total	132	200	332	$p=0.554$

Fisher' exact test:  $p=0.554 (>0.05)$

**Table 5** Distribution of MPO-463 gene polymorphism between the healthy control subjects and POAG patients

	Glaucoma Total = 66(%)	Controls Total = 100(%)	Total
Genotype			
A/A	2 (3.03)	2 (2.00)	
A/G	11 (16.67)	27 (27.00)	
G/G	53 (80.30)	71(71.00)	
Total	66	100	166

Fisher' exact test:  $p=0.292 (>0.05)$

**Table 6** The allelic frequencies of MPO-463 in healthy subjects and POAG patients

Allelic frequency			Total
Allele A	15 (11.36)	31 (15.50)	
Allele G	117 (88.64)	169 (84.50)	
Total	132	200	332

Fisher' exact test:  $p=0.183 (>0.05)$



**Table 7.** Effects on mitochondrial membrane potential in RGCs by various concentrations of NMDA and aloe-emodin metabolites

NMDA + aloe-emodin metabolites ( $\mu\text{M}$ )	Percentage of cells stained by DiOC6
0 + 0 (control)	90.2 $\pm$ 8.6
100 +15	70.2 $\pm$ 6.1
100 + 0	32.1 $\pm$ 2.5

Data expressed as mean  $\pm$  S.D.

Table 8. The number of RGCs of mice after aloe-emodin and NMDA-treatments

NMDA ( $\mu\text{g}$ ) /mouse	0	20	20	20	0
aloe-emodin ( $\mu\text{g}$ ) /mouse	20	0	20	10	0[(PEG 400 (40 $\mu\text{l}$ ))
RGCs $\pm$ SD (H&E)	19 $\pm$ 4.3	6 $\pm$ 2.1	15 $\pm$ 3.3	10 $\pm$ 3.3	20 $\pm$ 5.2
RGCs $\pm$ SD (TUNEL stain)		20 $\pm$ 2.3	5 $\pm$ 1.2		