

Table S1. Mean value of changes present in the gills of shrimps exposed to AgNP-AT and AgNO₃.

Aspects of histological analysis (AVA)	Control		AgNP-AT (μM)						AgNO ₃ (μM)					
	Untreated		0.5		1		10		0.01		0.05		0,1	
	24	96	24	96	24	96	24	96	24	96	24	96	24	96
Epithelial rupture	0	0	50	9.1	33.3	66.6	27	60	0	0	0	85	0	20
Partial lamellae fusion	0	10	5.5	4.5	0	0	13.3	20	0	10		92.3	0	32
Complete fusion of some lamellae	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Complete fusion of all lamellae	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hemocytic infiltration	0	0	72.2	100	83.3	100	86.7	80	0	0	9.1	100	85.7	96
Lifting of the lamellar cuticle	0	0	50	100	83.3	100	86.7	80	0	0	0	100	42.9	96
Disarray of the capillaries	0	0	27.8	40.9	50	33.3	33.3	80	0	0	0	30.8	57.1	28
Clavate-globate “clubbing”	0	0		0	0	22.2	70	80	0	0	0		57.1	0
Edema	0	0	50	9.1	33.3	66.6	26.7	60	0	0	0	84.6	0	20
Lamellar aneurysm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fibrosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Necrosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Presence of parasites	4.5	0	72.2	36.4	66.6	33.3	86.7	40	9.1	30.8	85.7	76	15	40

Average Value Alteration (AVA) based on the occurrence of injuries, for which numerical values were assigned as stage **I** – discrete (1-25 %), **II** – moderate (25-50 %), **III** – intense (50-75 %) and **IV** – severe (75-100 %).

Aspects of histological analysis (AVA)	Control		AgNP-AT (μM)				AgNO ₃ (μM)							
	Untreated		0.5		1		10		0.01		0.05		1	
	24	96	24	96	24	96	24	96	24	96	24	96	24	96
Nuclear Vacuolization	0	0	0	0	0	0	42	42	77	88.7	48	48	77	88.7
Cellular vacuolization	25	20	100	100	100	100	100	100	100	100	100	100	100	100
Basal lamina displacement	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Irregular or abnormal tubular appearance	10	10	100	100	100	100	100	100	100	100	100	100	100	100
Hemocytic infiltrations	60	70	100	100	100	100	100	100	100	100	100	100	100	100
Cell disruption	0	0	30	25	50	50	78	100	23	33.3	25	25	23	33.3
Necrosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table S2. Average Value Alteration (AVA) present in the hepatopancreatic organs of shrimp exposed to AgNP-AT and AgNO₃.

Average Value Alteration (AVA) based on the occurrence of injuries, for which numerical values were assigned as stage: **I** - discrete (1-25 %), **II** – moderate (25-50 %), **III** – intense (50-75 %) and **IV** – severe (75-100 %).

Table S3. Histological Alteration Index (HAI) in gills and hepatopancreatic tissue of shrimp exposed to AgNP-AT and AgNO₃ for 24 and 96 h.

		HAI Classification			
		Gills		Hepatopancreas	
		24 h	96 h	24 h	96 h
Untreated		1	1	3	3
AgNP-AT (μM)	0.5	35	35	24	24
	1	34	35	25	25
	10	36	36	26	26
AgNO₃ (μM)	0.01	3	35	14	14
	0.05	15	35	25	25
	0.1	36	36	25	24

*HAI from 0-10: functionally normal organ; HAI from 11-20: organ with mild to moderate changes; HAI 21-50: organ with moderate to severe changes; 51-100: organ with severe alterations.