

- ▲ Test chemicals exposure (i.p., 0.2 ml/mouse)  
Silver nanoparticles (5-100 nm AgNP PVP, i.p., 0.2 mg/mouse)
  - ① Saline (vehicle)
  - ② 5 nm AgNP PVP
  - ③ 10 nm AgNP PVP
  - ④ 60 nm AgNP PVP
  - ⑤ 100 nm AgNP PVP
- ▲ Sacrifice

Figure 1. 実験デザイン 【実験 A8】

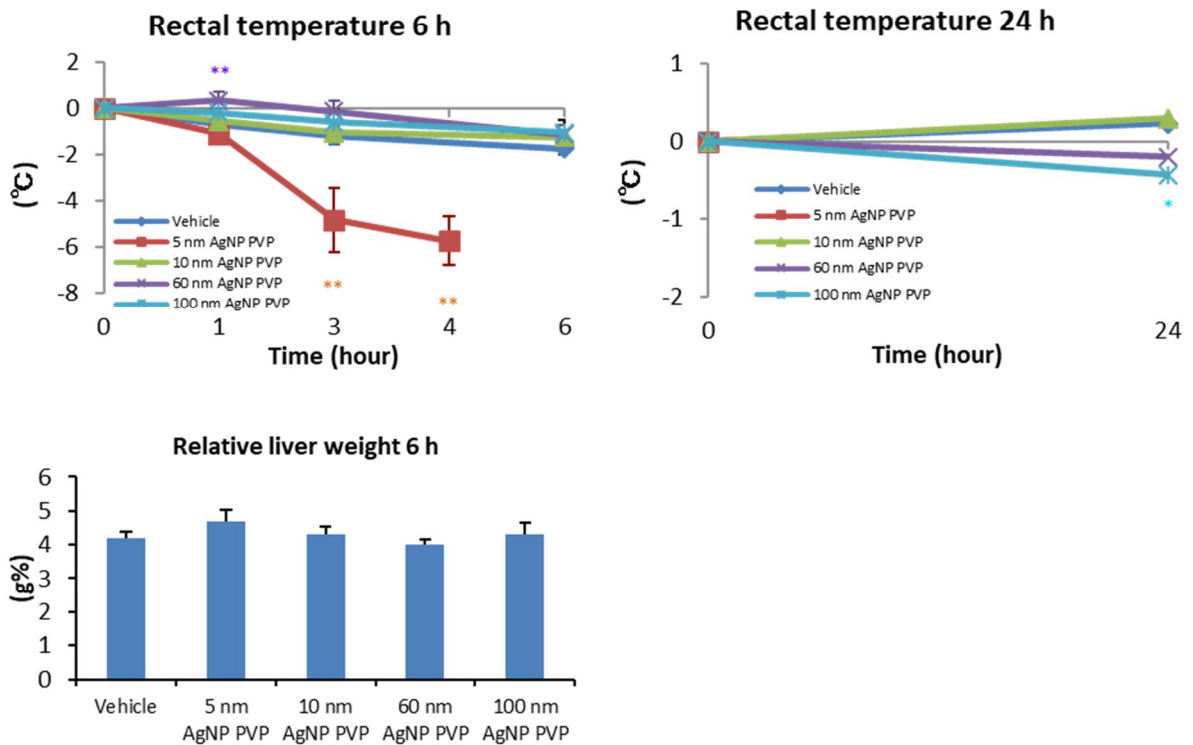
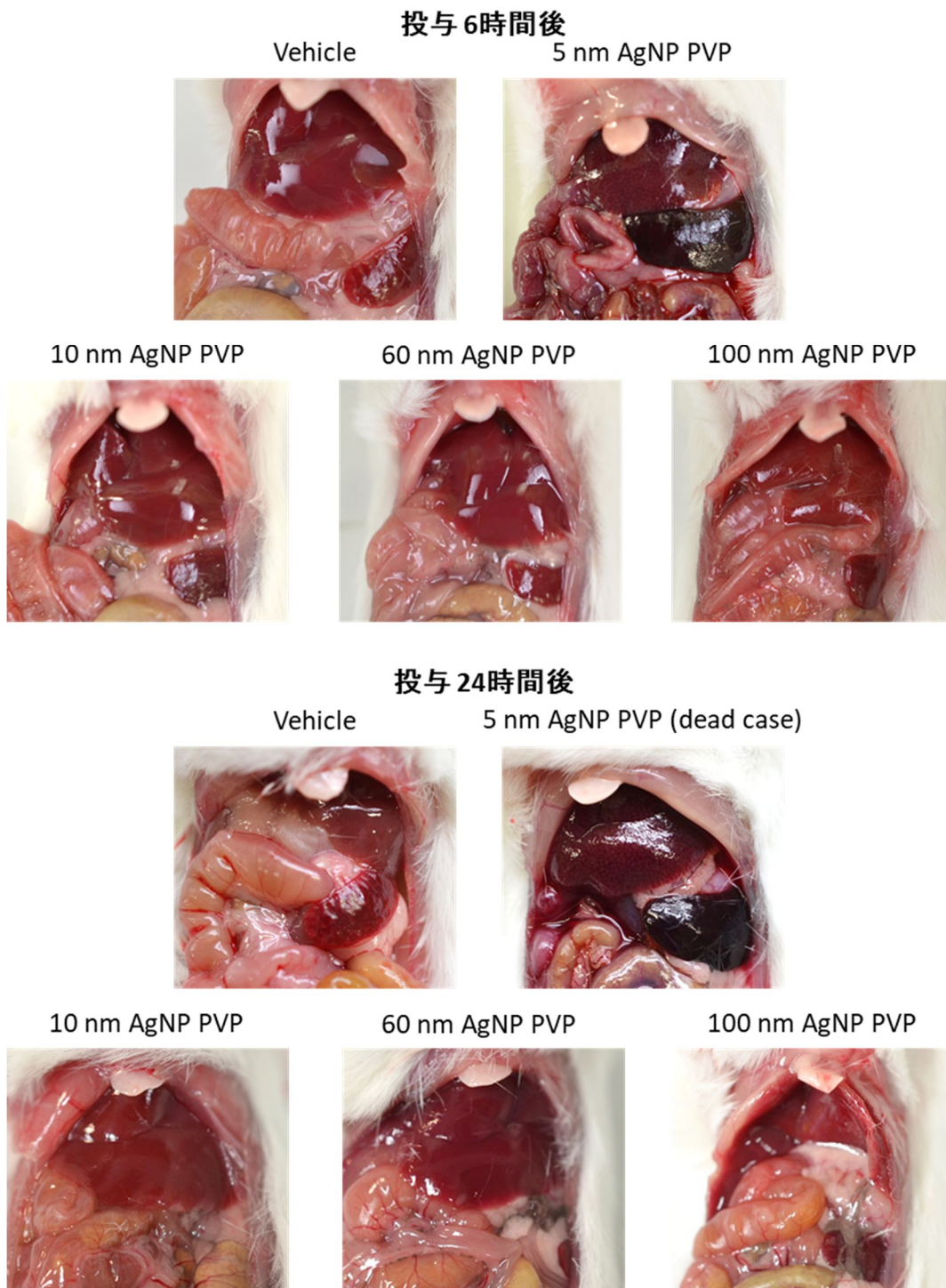


Figure 2. 体温変化及び相対肝重量 【実験 A8】



**Figure 3. 剖検時の肉眼変化**

**【実験 A8】**

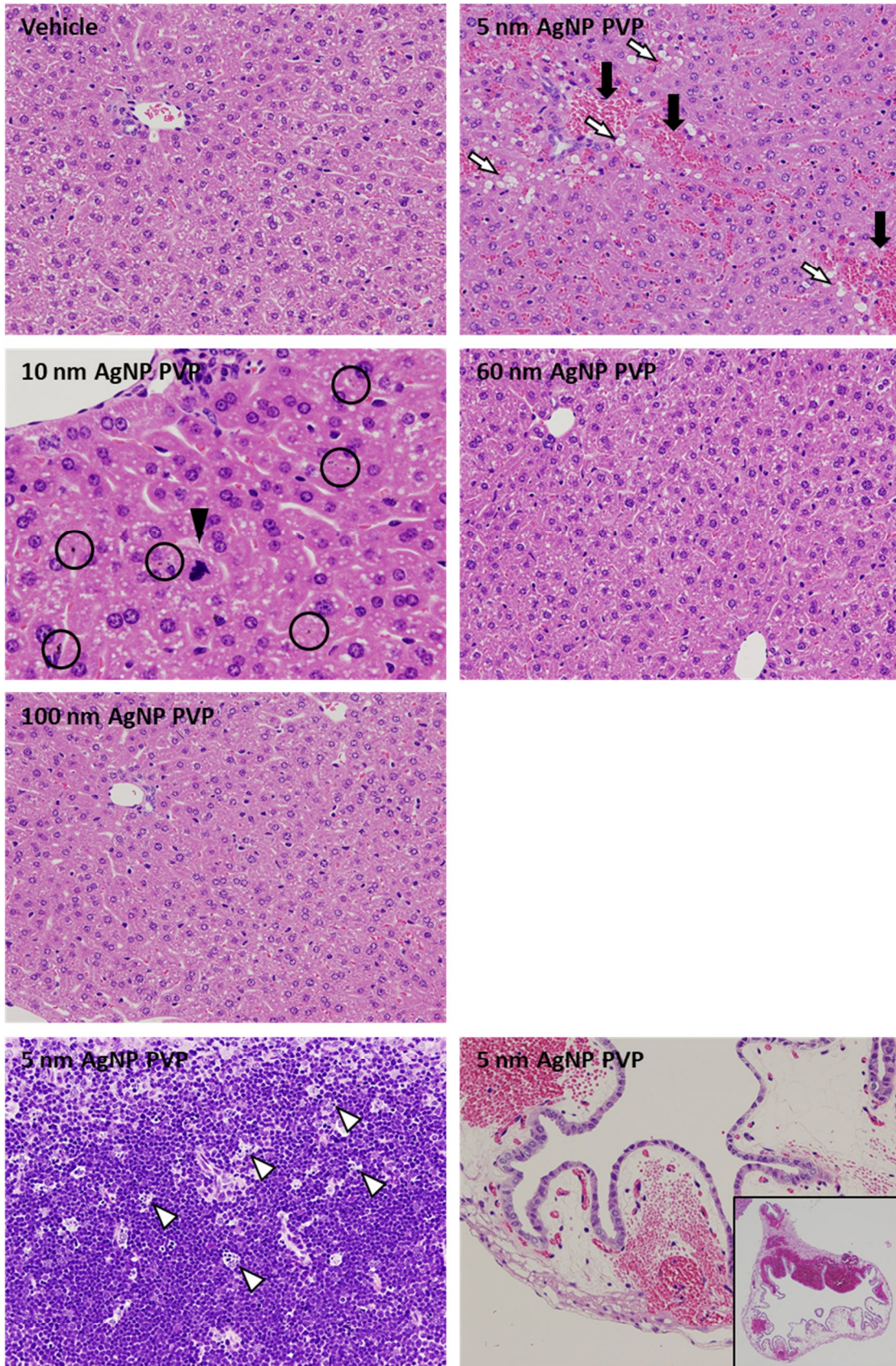


Figure 4. 肝臓、胆嚢、胸腺及び胆嚢の病理組織写真。

5 nm AgNP PVP 群の肝臓のうっ血 (黒矢印)、肝細胞の空胞化 (白矢印)、胸腺のアポトーシス (白矢頭) 及び胆嚢粘膜下・漿膜の浮腫並びに出血が認められた。10 nm AgNP PVP 群の肝臓の類洞内黒褐色色相沈着 (円内) 及び核分裂像 (黒矢頭) が観察された。

**【実験 A8】**

Table 1. Histopathological findings for Balb/C mice treated with AgNP PVP up to 6 hours

Organ and lesions		Treatment	6 hr				
			Vehicle	5 nm AgNP PVP	10 nm AgNP PVP	60 nm AgNP PVP	100 nm AgNP PVP
No. of animals		5	4	5	5	5	
Liver	Congestion, intermediate zone	0	4 **	0	0	0	
	Increased cellular component in sinusoid	0	3 *	0	0	0	
	Vacuolation, hepatocyte	0	4 **	0	0	0	
	Single cell necrosis, hepatocyte	0	1	1	0	0	
	Mitosis, hepatocyte	0	0	1	0	0	
	Degeneration	0	0	1	0	0	
	Dark brown pigment deposition in sinusoid	0	0	5 **	0	0	
	Microgranuloma	1	0	0	2	2	
Gallbladder	Edema, submucous	0	4 **	0	0	1	
	Edema, subserosa	0	4 **	0	0	1	
	Hemorrhage	0	1	0	0	0	
Spleen	Congestion	0	1	0	1	0	
Thymus	Apoptosis, cortex	0	4 **	0	0	0	
Thoracic lymph node	Dark brown pigment deposition, lymphocyte	0	3 *	5 **	5 **	4 *	
Intestine	Congestion, small intestine, lamina propria	0	1	0	0	0	
Mesenterium	Inflammatory cell foci +/-	5	4	2	3	2	
	Inflammatory cell foci +	0	0	2	0	1	
	Inflammatory cell foci ++	0	0	1	2	2	
	Dark brown pigment deposition, lymphocyte	0	4 **	5 **	5 **	5 **	
Mesenteric lymph nodes	Apoptosis, increased, lymphocyte	3	3	4	1	2	
	Hemorrhage	0	1	0	0	0	
Kidney	Regenerative tubules	4	3	5	3	3	
Heart	Mineralization, epicardium	5	4	4	4	5	
	Karyomegaly	0	0	0	1	0	
Pancreatic lymph node	Hemorrhage	0	1	0	0	0	

\*,\*\*; significantly different from the vehicle group at  $p < 0.05$  and  $0.01$ , respectively.

Table 2. Histopathological findings for Balb/C mice treated with PVP AgNP up to 24 hours

Organ and lesions		Treatment	24 hr				
			Vehicle	5 nm AgNP PVP	10 nm AgNP PVP	60 nm AgNP PVP	100 nm AgNP PVP
No. of animals		3	0	3	3	3	
Liver	Microgranuloma	0	0	0	1	2	
Gallbladder	Edema, submucous	0	0	1	0	0	
	Edema, subserosa +	0	0	1	0	0	
Spleen	Congestion	0	0	1	0	0	
Thoracic lymph node	Dark brown pigment deposition, lymphocyte +	0	0	2	3	3	
Mesenterium	Inflammatory cell foci +/-	3	0	1	0	1	
	Inflammatory cell foci +	0	0	1	2	0	
	Inflammatory cell foci ++	0	0	1	1	2	
	Dark brown pigment deposition, lymphocyte	0	0	3	3	3	
Mesenteric lymph nodes	Apoptosis, increased, lymphocyte	1	0	0	0	0	
Kidney	Regenerative tubules	1	0	2	1	2	
Heart	Mineralization, epicardium	2	0	2	1	0	
	Mineralization, myocardium	1	0	0	0	0	
Pancreatic lymph node	Dark brown pigment deposition, lymphocyte	0	0	0	1	0	
Cerebellum	Vacuolation	3	0	3	3	3	