

o-フェニレンジアミン二塩酸塩のマウスを用いた
経口投与による13週間毒性試験(混水試験)報告書

試験番号：0352

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TABLE 1 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF MALE MICE
IN THE 13-WEEK DRINKING WATER STUDY OF *o*-PHENYLENEDIAMINE DIHYDROCHLORIDE

Week on Study	Control		500ppm			1000ppm			2000ppm			4000ppm			5000ppm		
	Av. Wt. <10>	No. of Surviv. / 10	Av. Wt. <10>	% of cont.	No. of Surviv. / 10	Av. Wt. <10>	% of cont.	No. of Surviv. / 10	Av. Wt. <10>	% of cont.	No. of Surviv. / 10	Av. Wt. <10>	% of cont.	No. of Surviv. / 10	Av. Wt. <10>	% of cont.	No. of Surviv. / 10
0	23.8 (10)	10 / 10	23.8 (10)	100	10 / 10	23.8 (10)	100	10 / 10	23.8 (10)	100	10 / 10	23.8 (10)	100	10 / 10	23.8 (10)	100	10 / 10
1	24.5 (10)	10 / 10	24.5 (10)	100	10 / 10	24.1 (10)	98	10 / 10	23.2 (10)	95	10 / 10	20.4 (10)	83	10 / 10	19.2 (10)	78	10 / 10
2	25.2 (10)	10 / 10	25.3 (10)	100	10 / 10	24.9 (10)	99	10 / 10	24.2 (10)	96	10 / 10	22.8 (10)	90	10 / 10	20.5 (10)	81	10 / 10
3	26.3 (10)	10 / 10	25.9 (10)	98	10 / 10	25.3 (10)	96	10 / 10	25.1 (10)	95	10 / 10	23.6 (10)	90	10 / 10	22.2 (10)	84	10 / 10
4	26.8 (10)	10 / 10	26.6 (10)	99	10 / 10	26.0 (10)	97	10 / 10	25.6 (10)	96	10 / 10	24.1 (10)	90	10 / 10	23.2 (10)	87	10 / 10
5	27.4 (10)	10 / 10	27.5 (10)	100	10 / 10	26.6 (10)	97	10 / 10	26.1 (10)	95	10 / 10	24.9 (10)	91	10 / 10	23.9 (10)	87	10 / 10
6	28.3 (10)	10 / 10	28.1 (10)	99	10 / 10	27.2 (10)	96	10 / 10	26.5 (10)	94	10 / 10	25.2 (10)	89	10 / 10	24.4 (10)	86	10 / 10
7	29.1 (10)	10 / 10	28.7 (10)	99	10 / 10	27.9 (10)	96	10 / 10	27.1 (10)	93	10 / 10	25.5 (10)	88	10 / 10	24.7 (10)	85	10 / 10
8	29.6 (10)	10 / 10	29.1 (10)	98	10 / 10	28.1 (10)	95	10 / 10	27.3 (10)	92	10 / 10	25.4 (10)	86	10 / 10	24.8 (10)	84	10 / 10
9	29.8 (10)	10 / 10	29.3 (10)	98	10 / 10	28.3 (10)	95	10 / 10	27.3 (10)	92	10 / 10	25.4 (10)	85	10 / 10	24.6 (10)	83	10 / 10
10	31.8 (10)	10 / 10	31.1 (10)	98	10 / 10	30.1 (10)	95	10 / 10	28.7 (10)	90	10 / 10	26.4 (10)	83	10 / 10	25.5 (10)	80	10 / 10
11	32.5 (10)	10 / 10	31.6 (10)	97	10 / 10	30.4 (10)	94	10 / 10	28.9 (10)	89	10 / 10	26.3 (10)	81	10 / 10	25.3 (10)	78	10 / 10
12	33.1 (10)	10 / 10	31.9 (10)	96	10 / 10	31.0 (10)	94	10 / 10	29.2 (10)	88	10 / 10	26.5 (10)	80	10 / 10	25.7 (10)	78	10 / 10
13	34.0 (10)	10 / 10	32.5 (10)	96	10 / 10	30.9 (10)	91	10 / 10	29.4 (10)	86	10 / 10	26.7 (10)	79	10 / 10	25.8 (10)	76	10 / 10

< > : No.of effective animals, () : No.of measured animals Av.Wt.:g

TABLE 2 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF FEMALE MICE
IN THE 13-WEEK DRINKING WATER STUDY OF *o*-PHENYLENEDIAMINE DIHYDROCHLORIDE

Week on Study	Control		500ppm			1000ppm			2000ppm			4000ppm			5000ppm		
	Av. Wt. <10>	No. of Surviv. 10 / 10	Av. Wt. <10>	% of cont.	No. of Surviv. 10 / 10	Av. Wt. <10>	% of cont.	No. of Surviv. 10 / 10	Av. Wt. <10>	% of cont.	No. of Surviv. 10 / 10	Av. Wt. <10>	% of cont.	No. of Surviv. 10 / 10	Av. Wt. <10>	% of cont.	No. of Surviv. 10 / 10
0	19.5 (10)	10 / 10	19.5 (10)	100	10 / 10	19.5 (10)	100	10 / 10	19.5 (10)	100	10 / 10	19.5 (10)	100	10 / 10	19.5 (10)	100	10 / 10
1	20.3 (10)	10 / 10	20.3 (10)	100	10 / 10	20.0 (10)	99	10 / 10	19.5 (10)	96	10 / 10	17.2 (10)	85	10 / 10	14.5 (10)	71	10 / 10
2	20.8 (10)	10 / 10	20.7 (10)	100	10 / 10	21.0 (10)	101	10 / 10	20.2 (10)	97	10 / 10	19.4 (10)	93	10 / 10	17.3 (10)	83	10 / 10
3	21.6 (10)	10 / 10	21.1 (10)	98	10 / 10	21.1 (10)	98	10 / 10	20.7 (10)	96	10 / 10	20.2 (10)	94	10 / 10	19.1 (10)	88	10 / 10
4	21.6 (10)	10 / 10	21.4 (10)	99	10 / 10	21.5 (10)	100	10 / 10	20.9 (10)	97	10 / 10	20.4 (10)	94	10 / 10	19.7 (10)	91	10 / 10
5	22.1 (10)	10 / 10	22.0 (10)	100	10 / 10	21.9 (10)	99	10 / 10	21.7 (10)	98	10 / 10	20.9 (10)	95	10 / 10	20.7 (10)	94	10 / 10
6	22.4 (10)	10 / 10	22.2 (10)	99	10 / 10	22.6 (10)	101	10 / 10	21.8 (10)	97	10 / 10	21.3 (10)	95	10 / 10	20.9 (10)	93	10 / 10
7	22.9 (10)	10 / 10	22.7 (10)	99	10 / 10	21.8 (10)	95	10 / 10	22.3 (10)	97	10 / 10	21.2 (10)	93	10 / 10	20.9 (10)	91	10 / 10
8	23.2 (10)	10 / 10	22.9 (10)	99	10 / 10	22.6 (10)	97	10 / 10	22.5 (10)	97	10 / 10	21.6 (10)	93	10 / 10	21.2 (10)	91	10 / 10
9	22.9 (10)	10 / 10	22.5 (10)	98	10 / 10	22.5 (10)	98	10 / 10	22.2 (10)	97	10 / 10	21.4 (10)	93	10 / 10	21.2 (10)	93	10 / 10
10	24.1 (10)	10 / 10	23.8 (10)	99	10 / 10	24.2 (10)	100	10 / 10	23.1 (10)	96	10 / 10	22.3 (10)	93	10 / 10	22.1 (10)	92	10 / 10
11	24.4 (10)	10 / 10	23.9 (10)	98	10 / 10	23.9 (10)	98	10 / 10	23.4 (10)	96	10 / 10	22.6 (10)	93	10 / 10	22.3 (10)	91	10 / 10
12	24.6 (10)	10 / 10	24.6 (10)	100	10 / 10	24.5 (10)	100	10 / 10	23.8 (10)	97	10 / 10	22.9 (10)	93	10 / 10	22.7 (10)	92	10 / 10
13	24.7 (10)	10 / 10	24.0 (10)	97	10 / 10	24.4 (10)	99	10 / 10	23.7 (10)	96	10 / 10	23.0 (10)	93	10 / 10	22.6 (10)	91	10 / 10

< > : No.of effective animals, () : No.of measured animals Av.Wt.:g

TABLE 3 WATER CONSUMPTION CHANGES OF MALE MICE
IN THE 13-WEEK DRINKING WATER STUDY OF *o*-PHENYLENEDIAMINE DIHYDROCHLORIDE

Week on Study	Control		500ppm			1000ppm			2000ppm			4000ppm			5000ppm		
	Av. Wc. <10>	No. of Surviv.	Av. Wc. <10>	% of cont.	No. of Surviv.	Av. Wc. <10>	% of cont.	No. of Surviv.	Av. Wc. <10>	% of cont.	No. of Surviv.	Av. Wc. <10>	% of cont.	No. of Surviv.	Av. Wc. <10>	% of cont.	No. of Surviv.
1	4.9 (10)	10 / 10	3.9 (9)	80	10 / 10	2.9 (10)	59	10 / 10	2.3 (10)	47	10 / 10	1.4 (10)	29	10 / 10	1.1 (10)	22	10 / 10
2	4.7 (10)	10 / 10	3.8 (10)	81	10 / 10	2.8 (10)	60	10 / 10	2.2 (10)	47	10 / 10	1.8 (10)	38	10 / 10	1.5 (10)	32	10 / 10
3	4.4 (10)	10 / 10	3.8 (10)	86	10 / 10	2.7 (10)	61	10 / 10	2.3 (10)	52	10 / 10	1.8 (10)	41	10 / 10	1.7 (10)	39	10 / 10
4	4.2 (10)	10 / 10	3.7 (10)	88	10 / 10	2.7 (10)	64	10 / 10	2.2 (9)	52	10 / 10	1.8 (10)	43	10 / 10	1.6 (10)	38	10 / 10
5	4.0 (10)	10 / 10	3.5 (10)	88	10 / 10	2.6 (10)	65	10 / 10	2.3 (10)	58	10 / 10	1.8 (10)	45	10 / 10	1.6 (10)	40	10 / 10
6	4.1 (10)	10 / 10	3.6 (10)	88	10 / 10	2.7 (10)	66	10 / 10	2.4 (10)	59	10 / 10	1.9 (10)	46	10 / 10	1.8 (10)	44	10 / 10
7	4.0 (10)	10 / 10	3.4 (10)	85	10 / 10	2.6 (10)	65	10 / 10	2.2 (10)	55	10 / 10	1.8 (10)	45	10 / 10	1.7 (10)	42	10 / 10
8	3.8 (10)	10 / 10	3.3 (10)	87	10 / 10	2.6 (10)	68	10 / 10	2.3 (10)	61	10 / 10	1.8 (10)	47	10 / 10	1.8 (10)	47	10 / 10
9	4.1 (10)	10 / 10	3.4 (10)	83	10 / 10	2.7 (10)	66	10 / 10	2.4 (10)	59	10 / 10	2.0 (10)	49	10 / 10	1.8 (10)	44	10 / 10
10	3.8 (10)	10 / 10	3.3 (10)	87	10 / 10	2.6 (10)	68	10 / 10	2.2 (10)	58	10 / 10	1.8 (10)	47	10 / 10	1.6 (10)	42	10 / 10
11	3.5 (9)	10 / 10	3.2 (10)	91	10 / 10	2.5 (10)	71	10 / 10	2.3 (10)	66	10 / 10	1.8 (10)	51	10 / 10	1.6 (10)	46	10 / 10
12	3.7 (10)	10 / 10	3.3 (10)	89	10 / 10	2.7 (10)	73	10 / 10	2.3 (10)	62	10 / 10	1.9 (10)	51	10 / 10	1.7 (10)	46	10 / 10
13	3.7 (10)	10 / 10	3.2 (10)	86	10 / 10	2.6 (10)	70	10 / 10	2.3 (10)	62	10 / 10	1.9 (10)	51	10 / 10	1.7 (10)	46	10 / 10

< > : No. of effective animals, () : No. of measured animals Av.Wc.:g

TABLE 4 WATER CONSUMPTION CHANGES OF FEMALE MICE
IN THE 13-WEEK DRINKING WATER STUDY OF O-PHENYLENEDIAMINE DIHYDROCHLORIDE

Week on Study	Control		500ppm			1000ppm			2000ppm			4000ppm			5000ppm		
	Av. Wc. <10>	No. of Surviv.	Av. Wc. <10>	% of cont.	No. of Surviv.	Av. Wc. <10>	% of cont.	No. of Surviv.	Av. Wc. <10>	% of cont.	No. of Surviv.	Av. Wc. <10>	% of cont.	No. of Surviv.	Av. Wc. <10>	% of cont.	No. of Surviv.
1	4.3 (10)	10 / 10	4.2 (10)	98	10 / 10	3.4 (10)	79	10 / 10	2.2 (10)	51	10 / 10	1.6 (10)	37	10 / 10	1.0 (10)	23	10 / 10
2	4.3 (10)	10 / 10	4.1 (10)	95	10 / 10	3.3 (10)	77	10 / 10	2.2 (10)	51	10 / 10	1.8 (10)	42	10 / 10	1.8 (10)	42	10 / 10
3	4.2 (10)	10 / 10	4.2 (10)	100	10 / 10	3.5 (10)	83	10 / 10	2.5 (10)	60	10 / 10	1.9 (10)	45	10 / 10	1.8 (10)	43	10 / 10
4	4.1 (10)	10 / 10	4.4 (10)	107	10 / 10	3.4 (10)	83	10 / 10	2.5 (10)	61	10 / 10	1.8 (10)	44	10 / 10	1.8 (10)	44	10 / 10
5	3.9 (10)	10 / 10	4.1 (10)	105	10 / 10	3.4 (10)	87	10 / 10	2.6 (10)	67	10 / 10	1.9 (10)	49	10 / 10	1.9 (10)	49	10 / 10
6	4.2 (10)	10 / 10	4.4 (10)	105	10 / 10	3.7 (10)	88	10 / 10	2.8 (10)	67	10 / 10	2.0 (10)	48	10 / 10	2.0 (10)	48	10 / 10
7	4.0 (10)	10 / 10	4.1 (10)	103	10 / 10	3.5 (10)	88	10 / 10	2.7 (10)	67	10 / 10	2.0 (10)	50	10 / 10	2.0 (10)	50	10 / 10
8	4.2 (10)	10 / 10	4.2 (10)	100	10 / 10	3.5 (10)	83	10 / 10	2.7 (10)	64	10 / 10	2.0 (10)	48	10 / 10	2.0 (10)	48	10 / 10
9	4.2 (10)	10 / 10	4.3 (10)	102	10 / 10	3.6 (10)	86	10 / 10	2.7 (10)	64	10 / 10	2.0 (10)	48	10 / 10	2.1 (10)	50	10 / 10
10	4.1 (10)	10 / 10	4.1 (10)	100	10 / 10	3.3 (10)	80	10 / 10	2.5 (10)	61	10 / 10	1.9 (10)	46	10 / 10	2.0 (10)	49	10 / 10
11	3.9 (10)	10 / 10	3.9 (10)	100	10 / 10	3.4 (10)	87	10 / 10	2.6 (10)	67	10 / 10	1.9 (10)	49	10 / 10	2.0 (10)	51	10 / 10
12	4.4 (10)	10 / 10	4.2 (10)	95	10 / 10	3.5 (10)	80	10 / 10	2.7 (10)	61	10 / 10	1.9 (10)	43	10 / 10	2.2 (10)	50	10 / 10
13	4.2 (10)	10 / 10	4.1 (10)	98	10 / 10	3.5 (10)	83	10 / 10	2.9 (10)	69	10 / 10	2.1 (10)	50	10 / 10	2.2 (10)	52	10 / 10

< > : No. of effective animals, () : No. of measured animals Av.Wc.:g

TABLE 5 FOOD CONSUMPTION CHANGES OF MALE MICE
IN THE 13-WEEK DRINKING WATER STUDY OF *o*-PHENYLENEDIAMINE DIHYDROCHLORIDE

Week on Study	Control		500ppm			1000ppm			2000ppm			4000ppm			5000ppm		
	Av. Fc. <10>	No. of Surviv.	Av. Fc.	% of cont.	No. of Surviv.	Av. Fc.	% of cont.	No. of Surviv.	Av. Fc.	% of cont.	No. of Surviv.	Av. Fc.	% of cont.	No. of Surviv.	Av. Fc.	% of cont.	No. of Surviv.
1	3.9 (10)	10 / 10	3.7 (10)	95	10 / 10	3.5 (10)	90	10 / 10	3.3 (10)	85	10 / 10	2.5 (10)	64	10 / 10	2.3 (10)	59	10 / 10
2	3.7 (10)	10 / 10	3.6 (10)	97	10 / 10	3.5 (10)	95	10 / 10	3.6 (10)	97	10 / 10	3.5 (10)	95	10 / 10	3.0 (10)	81	10 / 10
3	3.8 (10)	10 / 10	3.7 (10)	97	10 / 10	3.5 (10)	92	10 / 10	3.6 (10)	95	10 / 10	3.6 (10)	95	10 / 10	3.5 (10)	92	10 / 10
4	3.8 (10)	10 / 10	3.7 (10)	97	10 / 10	3.5 (10)	92	10 / 10	3.5 (10)	92	10 / 10	3.4 (10)	89	10 / 10	3.4 (10)	89	10 / 10
5	3.8 (10)	10 / 10	3.8 (10)	100	10 / 10	3.6 (10)	95	10 / 10	3.6 (10)	95	10 / 10	3.4 (10)	89	10 / 10	3.4 (10)	89	10 / 10
6	3.8 (10)	10 / 10	3.7 (10)	97	10 / 10	3.5 (10)	92	10 / 10	3.5 (10)	92	10 / 10	3.4 (10)	89	10 / 10	3.3 (10)	87	10 / 10
7	4.0 (10)	10 / 10	3.9 (10)	97	10 / 10	3.7 (10)	92	10 / 10	3.7 (10)	92	10 / 10	3.5 (10)	88	10 / 10	3.3 (10)	83	10 / 10
8	4.0 (10)	10 / 10	3.8 (10)	95	10 / 10	3.6 (10)	90	10 / 10	3.6 (10)	90	10 / 10	3.5 (10)	88	10 / 10	3.4 (10)	85	10 / 10
9	4.1 (10)	10 / 10	3.9 (10)	95	10 / 10	3.8 (10)	93	10 / 10	3.7 (10)	90	10 / 10	3.5 (10)	85	10 / 10	3.4 (10)	83	10 / 10
10	4.2 (9)	10 / 10	4.0 (10)	95	10 / 10	3.9 (10)	93	10 / 10	3.9 (10)	93	10 / 10	3.6 (10)	86	10 / 10	3.5 (10)	83	10 / 10
11	4.3 (10)	10 / 10	4.0 (10)	93	10 / 10	3.8 (10)	88	10 / 10	3.8 (10)	88	10 / 10	3.5 (10)	81	10 / 10	3.3 (10)	77	10 / 10
12	4.1 (10)	10 / 10	3.9 (10)	95	10 / 10	3.8 (10)	93	10 / 10	3.8 (10)	93	10 / 10	3.5 (10)	85	10 / 10	3.5 (10)	85	10 / 10
13	4.2 (10)	10 / 10	4.0 (10)	95	10 / 10	3.9 (10)	93	10 / 10	3.8 (10)	90	10 / 10	3.6 (10)	86	10 / 10	3.5 (10)	83	10 / 10

< > : No.of effective animals, () : No.of measured animals Av.Fc.:g

TABLE 6 FOOD CONSUMPTION CHANGES OF FEMALE MICE
IN THE 13-WEEK DRINKING WATER STUDY OF O-PHENYLENEDIAMINE DIHYDROCHLORIDE

Week on Study	Control		500ppm			1000ppm			2000ppm			4000ppm			5000ppm		
	Av. Fc. <10>	No. of Surviv. 10 / 10	Av. Fc. <10>	% of cont.	No. of Surviv. 10 / 10	Av. Fc. <10>	% of cont.	No. of Surviv. 10 / 10	Av. Fc. <10>	% of cont.	No. of Surviv. 10 / 10	Av. Fc. <10>	% of cont.	No. of Surviv. 10 / 10	Av. Fc. <10>	% of cont.	No. of Surviv. 10 / 10
1	3.5 (10)	10 / 10	3.3 (10)	94	10 / 10	3.3 (10)	94	10 / 10	3.0 (10)	86	10 / 10	2.4 (10)	69	10 / 10	2.0 (10)	57	10 / 10
2	3.1 (10)	10 / 10	3.2 (10)	103	10 / 10	3.4 (10)	110	10 / 10	3.2 (10)	103	10 / 10	3.1 (10)	100	10 / 10	2.9 (10)	94	10 / 10
3	3.5 (10)	10 / 10	3.4 (10)	97	10 / 10	3.5 (10)	100	10 / 10	3.4 (10)	97	10 / 10	3.3 (10)	94	10 / 10	3.4 (10)	97	10 / 10
4	3.4 (10)	10 / 10	3.4 (10)	100	10 / 10	3.5 (10)	103	10 / 10	3.3 (10)	97	10 / 10	3.2 (10)	94	10 / 10	3.3 (10)	97	10 / 10
5	3.6 (10)	10 / 10	3.6 (10)	100	10 / 10	3.7 (10)	103	10 / 10	3.5 (10)	97	10 / 10	3.2 (10)	89	10 / 10	3.3 (10)	92	10 / 10
6	3.5 (10)	10 / 10	3.5 (10)	100	10 / 10	3.7 (10)	106	10 / 10	3.4 (10)	97	10 / 10	3.3 (10)	94	10 / 10	3.2 (10)	91	10 / 10
7	3.7 (10)	10 / 10	3.7 (10)	100	10 / 10	3.7 (10)	100	10 / 10	3.6 (10)	97	10 / 10	3.3 (10)	89	10 / 10	3.3 (10)	89	10 / 10
8	3.8 (10)	10 / 10	3.7 (10)	97	10 / 10	3.9 (10)	103	10 / 10	3.7 (10)	97	10 / 10	3.4 (10)	89	10 / 10	3.4 (10)	89	10 / 10
9	3.9 (10)	10 / 10	3.8 (10)	97	10 / 10	3.9 (10)	100	10 / 10	3.7 (10)	95	10 / 10	3.5 (10)	90	10 / 10	3.5 (10)	90	10 / 10
10	4.0 (10)	10 / 10	3.9 (10)	97	10 / 10	4.0 (10)	100	10 / 10	3.7 (10)	92	10 / 10	3.6 (10)	90	10 / 10	3.6 (10)	90	10 / 10
11	3.8 (10)	10 / 10	3.7 (10)	97	10 / 10	3.8 (10)	100	10 / 10	3.6 (10)	95	10 / 10	3.4 (10)	89	10 / 10	3.4 (10)	89	10 / 10
12	4.0 (10)	10 / 10	3.9 (10)	97	10 / 10	3.9 (10)	97	10 / 10	3.8 (10)	95	10 / 10	3.5 (10)	88	10 / 10	3.5 (10)	88	10 / 10
13	3.9 (10)	10 / 10	3.8 (10)	97	10 / 10	3.8 (10)	97	10 / 10	3.8 (10)	97	10 / 10	3.7 (10)	95	10 / 10	3.6 (10)	92	10 / 10

< > : No. of effective animals, () : No. of measured animals Av.Fc.:g

TABLE 7 HEMATOLOGY OF MALE MICE IN THE 13-WEEK DRINKING WATER STUDY
OF *o*-PHENYLENEDIAMINE DIHYDROCHLORIDE

Group Name	Control	500 ppm	1000 ppm	2000 ppm	4000 ppm	5000 ppm
No. of examined animals	9	10	8	9	9	10
Red blood cell ($10^6/\mu\text{L}$)	10.79 \pm 0.27	10.88 \pm 0.35	10.62 \pm 0.35	10.61 \pm 0.22	10.44 \pm 0.39	10.50 \pm 0.26
Hemoglobin (g/dL)	15.7 \pm 0.4	15.7 \pm 0.5	15.6 \pm 0.3	15.4 \pm 0.4	15.2 \pm 0.4 *	15.2 \pm 0.4
Hematocrit (%)	51.4 \pm 1.2	51.7 \pm 1.5	50.8 \pm 1.5	50.9 \pm 0.9	50.2 \pm 1.5	50.5 \pm 1.4
MCV (fL)	47.6 \pm 0.4	47.5 \pm 0.6	47.9 \pm 0.6	48.0 \pm 0.4	48.1 \pm 0.6	48.0 \pm 0.6
MCH (pg)	14.5 \pm 0.2	14.5 \pm 0.1	14.7 \pm 0.3	14.5 \pm 0.2	14.5 \pm 0.3	14.5 \pm 0.2
MCHC (g/dL)	30.5 \pm 0.4	30.4 \pm 0.3	30.6 \pm 0.7	30.3 \pm 0.3	30.2 \pm 0.4	30.2 \pm 0.3
Platlet ($10^3/\mu\text{L}$)	1376 \pm 54	1460 \pm 85	1507 \pm 65 *	1530 \pm 106 **	1602 \pm 234 **	1532 \pm 79 **
WBC ($10^3/\mu\text{L}$)	1.56 \pm 0.69	1.44 \pm 0.57	1.64 \pm 0.40	1.62 \pm 0.72	0.95 \pm 0.56	2.10 \pm 0.91
Differential WBC (%)						
N-BAND	0 \pm 0	0 \pm 1	0 \pm 0	0 \pm 1	0 \pm 0	0 \pm 0
N-SEG	15 \pm 3	16 \pm 4	19 \pm 3	20 \pm 7	23 \pm 10	18 \pm 5
EOSINO	1 \pm 1	1 \pm 1	1 \pm 1	1 \pm 2	0 \pm 1	1 \pm 1
BASO	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0
MONO	2 \pm 2	3 \pm 1	2 \pm 1	2 \pm 1	3 \pm 2	2 \pm 1
LYMPHO	81 \pm 3	81 \pm 4	78 \pm 3	77 \pm 7	74 \pm 9	79 \pm 5
OTHER	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 1	0 \pm 0	0 \pm 0

Mean \pm S.D.

* Significant difference, $p < 0.05$ (Test of Dunnett)

** Significant difference, $p < 0.01$ (Test of Dunnett)

TABLE 8 HEMATOLOGY OF FEMALE MICE IN THE 13-WEEK DRINKING WATER STUDY
OF *o*-PHENYLENEDIAMINE DIHYDROCHLORIDE

Group Name	Control	500 ppm	1000 ppm	2000 ppm	4000 ppm	5000 ppm
No. of examined animals	10	10	10	10	10	10
Red blood cell ($10^6/\mu\text{L}$)	10.74 \pm 0.88	10.53 \pm 0.33	10.59 \pm 0.26	10.36 \pm 0.42	10.21 \pm 0.44 **	10.03 \pm 0.21 **
Hemoglobin (g/dL)	15.9 \pm 0.6	15.6 \pm 0.5	15.8 \pm 0.4	15.5 \pm 0.7	15.3 \pm 0.6 *	15.1 \pm 0.3 **
Hematocrit (%)	51.4 \pm 1.8	51.0 \pm 1.5	51.9 \pm 1.0	50.5 \pm 2.3	50.2 \pm 1.8	49.5 \pm 0.8 *
MCV (fL)	47.8 \pm 0.4	48.5 \pm 0.6	48.9 \pm 0.8 **	48.7 \pm 0.8 *	49.2 \pm 0.6 **	49.4 \pm 0.6 **
MCH (pg)	14.8 \pm 0.2	14.8 \pm 0.2	14.9 \pm 0.2	15.0 \pm 0.1	15.0 \pm 0.2	15.1 \pm 0.2 *
MCHC (g/dL)	31.0 \pm 0.5	30.6 \pm 0.3	30.4 \pm 0.4 *	30.7 \pm 0.6	30.4 \pm 0.3 *	30.5 \pm 0.3
Platlet ($10^3/\mu\text{L}$)	1213 \pm 187	1349 \pm 90	1334 \pm 78	1320 \pm 150	1333 \pm 74	1325 \pm 65
WBC ($10^3/\mu\text{L}$)	0.95 \pm 0.55	1.40 \pm 0.78	1.34 \pm 0.71	1.10 \pm 0.60	1.27 \pm 0.75	1.07 \pm 1.12
Differential WBC (%)						
N-BAND	0 \pm 1	1 \pm 2	0 \pm 1	0 \pm 0	0 \pm 0	0 \pm 0
N-SEG	15 \pm 6	23 \pm 11	24 \pm 8 *	22 \pm 3 **	19 \pm 4	24 \pm 11
EOSINO	1 \pm 1	1 \pm 1	1 \pm 1	0 \pm 0	1 \pm 1	0 \pm 0
BASO	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0	0 \pm 0
MONO	2 \pm 1	2 \pm 1	2 \pm 2	2 \pm 1	1 \pm 1	2 \pm 1
LYMPHO	82 \pm 6	74 \pm 12	73 \pm 9 *	75 \pm 3 *	79 \pm 4	74 \pm 11
OTHER	0 \pm 0	0 \pm 0	0 \pm 1	0 \pm 0	0 \pm 0	0 \pm 0

Mean \pm S.D.

*) Significant difference, $p < 0.05$ (Test of Dunnett)

**) Significant difference, $p < 0.01$ (Test of Dunnett)

TABLE 9 BIOCHEMISTRY OF MALE MICE IN THE 13-WEEK DRINKING WATER STUDY OF *o*-PHENYLENEDIAMINE DIHYDROCHLORIDE

Group Name	Control	500 ppm	1000 ppm	2000 ppm	4000 ppm	5000 ppm
No. of examined animals	9	10	8	10	9	10
Total protein (g/dL)	5.0 ± 0.2	5.1 ± 0.1	5.0 ± 0.1	5.0 ± 0.2	5.0 ± 0.1	4.9 ± 0.1
Albumin (g/dL)	2.8 ± 0.1	2.9 ± 0.1	2.9 ± 0.1	2.9 ± 0.1	2.9 ± 0.2	2.9 ± 0.1
A/G ratio	1.3 ± 0.1	1.3 ± 0.1	1.4 ± 0.1	1.4 ± 0.1	1.3 ± 0.2	1.4 ± 0.1
T-Bilirubin (mg/dL)	0.14 ± 0.01	0.15 ± 0.01	0.14 ± 0.01	0.15 ± 0.03	0.14 ± 0.02	0.14 ± 0.02
Glucose (mg/dL)	195 ± 36	206 ± 35	219 ± 35	240 ± 46	186 ± 41	184 ± 30
T-Cholesterol (mg/dL)	84 ± 6	85 ± 6	80 ± 6	83 ± 6	81 ± 8	81 ± 6
Triglyceride (mg/dL)	33 ± 9	38 ± 14	34 ± 13	33 ± 16	20 ± 9	19 ± 8
Phospholipid (mg/dL)	171 ± 14	171 ± 13	164 ± 8	168 ± 12	151 ± 26	159 ± 14
GOT (IU/L)	47 ± 9	43 ± 3	40 ± 4	38 ± 4 *	49 ± 17	42 ± 10
GPT (IU/L)	19 ± 3	18 ± 2	16 ± 1	17 ± 4	18 ± 3	22 ± 10
LDH (IU/L)	204 ± 63	183 ± 25	165 ± 16	179 ± 60	205 ± 54	185 ± 80
ALP (IU/L)	135 ± 11	137 ± 10	133 ± 10	143 ± 11	151 ± 15 *	149 ± 10 *
γ-GTP(IU/L)	1 ± 1	0 ± 1	1 ± 1	1 ± 1	1 ± 1	1 ± 1
CPK (IU/L)	81 ± 48	57 ± 20	45 ± 8	50 ± 18	71 ± 3	57 ± 26
Urea Nitrogen(mg/L)	25.8 ± 6.1	24.3 ± 3.7	23.8 ± 4.3	25.8 ± 3.8	28.0 ± 4.7	25.7 ± 2.4
Sodium (mEq/L)	152 ± 1	151 ± 1	151 ± 1	151 ± 2	153 ± 2	152 ± 2
Potassium (mEq/L)	4.5 ± 0.6	4.4 ± 0.4	4.4 ± 0.3	4.4 ± 0.5	4.2 ± 0.3	4.2 ± 0.5
Chloride (mEq/L)	123 ± 2	123 ± 2	122 ± 2	122 ± 3	123 ± 2	122 ± 2
Calcium(mg/dL)	8.7 ± 0.3	8.8 ± 0.2	8.7 ± 0.2	8.7 ± 0.4	8.7 ± 0.2	8.7 ± 0.2
Inorganic phosphorus (mg/dL)	7.1 ± 0.6	6.5 ± 0.5	7.0 ± 1.1	7.2 ± 1.3	7.5 ± 1.5	7.1 ± 1.2

Mean ± S.D.

*) Significant difference, $p < 0.05$ (Test of Dunnett)

***) Significant difference, $p < 0.01$ (Test of Dunnett)

TABLE 10 BIOCHEMISTRY OF FEMALE MICES IN THE 13-WEEK DRINKING WATER STUDY OF *o*-PHENYLENEDIAMINE DIHYDROCHLORIDE

Group Name	Control	500 ppm	1000 ppm	2000 ppm	4000 ppm	5000 ppm
No. of examined animals	10	10	10	10	10	10
Total protein (g/dL)	5.2 ± 0.1	5.0 ± 0.1	5.1 ± 0.1	5.1 ± 0.2	4.9 ± 0.2 **	4.9 ± 0.1 **
Albumin (g/dL)	3.1 ± 0.1	3.0 ± 0.1	3.1 ± 0.1	3.1 ± 0.2	3.0 ± 0.1	3.0 ± 0.1
A/G ratio	1.6 ± 0.1	1.5 ± 0.1	1.6 ± 0.1	1.5 ± 0.1	1.6 ± 0.1	1.6 ± 0.1
T-Bilirubin (mg/dL)	0.13 ± 0.01	0.14 ± 0.01	0.13 ± 0.01	0.14 ± 0.04	0.13 ± 0.01	0.14 ± 0.02
Glucose (mg/dL)	150 ± 23	154 ± 22	159 ± 24	171 ± 21	159 ± 23	169 ± 29
T-Cholesterol (mg/dL)	74 ± 8	76 ± 10	80 ± 11	82 ± 9	88 ± 8 **	93 ± 10 **
Triglyceride (mg/dL)	19 ± 5	19 ± 6	18 ± 8	19 ± 13	17 ± 6	19 ± 5
Phospholipid (mg/dL)	148 ± 18	151 ± 21	156 ± 24	157 ± 20	163 ± 19	168 ± 18
GOT (IU/L)	55 ± 8	59 ± 9	58 ± 7	56 ± 8	54 ± 9	60 ± 11
GPT (IU/L)	21 ± 3	24 ± 6	20 ± 4	23 ± 8	23 ± 7	22 ± 2
LDH (IU/L)	196 ± 37	262 ± 55	201 ± 43	245 ± 77	212 ± 64	248 ± 71
ALP (IU/L)	228 ± 24	207 ± 11	228 ± 28	205 ± 11	203 ± 19	199 ± 25 *
γ-GTP(IU/L)	1 ± 1	1 ± 1	1 ± 1	1 ± 1	1 ± 1	1 ± 1
CPK (IU/L)	67 ± 43	191 ± 184	104 ± 74	150 ± 154	101 ± 36	113 ± 56
Urea Nitrogen(mg/L)	17.8 ± 2.5	19.4 ± 2.5	22.3 ± 3.2 **	22.5 ± 2.1 **	21.6 ± 3.3 *	25.1 ± 2.9 **
Sodium (mEq/L)	151 ± 1	151 ± 1	152 ± 2	152 ± 2	151 ± 1	153 ± 3
Potassium (mEq/L)	4.8 ± 0.3	4.6 ± 0.4	4.6 ± 0.2	4.4 ± 0.3	4.1 ± 0.3 **	4.2 ± 0.5 **
Chloride (mEq/L)	121 ± 2	123 ± 1	123 ± 2 *	123 ± 1	121 ± 2	122 ± 2
Calcium(mg/dL)	8.8 ± 0.2	8.7 ± 2.0	8.8 ± 0.2	8.6 ± 0.3	8.7 ± 0.2	8.7 ± 0.2
Inorganic phosphorus (mg/dL)	6.9 ± 0.6	6.7 ± 0.7	7.4 ± 1.4	6.6 ± 0.6	7.1 ± 0.9	7.4 ± 0.7

Mean ± S.D.

*) Significant difference, $p < 0.05$ (Test of Dunnett)

**) Significant difference, $p < 0.01$ (Test of Dunnett)

TABLE 11 URINALYSIS OF FEMALE MICE IN THE 13-WEEK DRINKING WATER STUDY OF *o*-PHENYLENEDIAMINE DIHYDROCHLORIDE

Group		Control	500 ppm	1000 ppm	2000 ppm	4000 ppm	5000 ppm
Number of examined animals		10	10	10	10	10	10
	Grade						
pH	6.0	0	0	0	0	0 **	2 **
	6.5	0	1	0	4	8	6
	7.0	1	1	4	3	0	2
	7.5	5	2	6	2	2	0
	8.0	2	4	0	1	0	0
	8.5	2	2	0	0	0	0
Protein	—	0	0	0 *	0 *	0 *	0
	±	0	0	0	0	0	0
	+	7	6	2	2	1	4
	2+	3	3	8	8	8	6
	3+	0	0	0	0	1	0
	4+	0	1	0	0	0	0
Glucose	—	10	10	10	10	10	10
	±	0	0	0	0	0	0
	+	0	0	0	0	0	0
	2+	0	0	0	0	0	0
	3+	0	0	0	0	0	0
	4+	0	0	0	0	0	0
Ketone body	—	1	2	3	3	3	4 *
	±	8	6	5	3	3	1
	+	1	2	2	4	3	4
	2+	0	0	0	0	1	1
	3+	0	0	0	0	0	0
	4+	0	0	0	0	0	0
Occult blood	—	10	10	10	10	10	10
	±	0	0	0	0	0	0
	+	0	0	0	0	0	0
	2+	0	0	0	0	0	0
	3+	0	0	0	0	0	0
Urobilinogen	±	10	10	10	10	10	10
	+	0	0	0	0	0	0
	2+	0	0	0	0	0	0
	3+	0	0	0	0	0	0
	4+	0	0	0	0	0	0
Significant difference * : p<0.05 ** : p<0.01 Chi square test							

TABLE 12 URINALYSIS OF FEMALE MICE IN THE 13-WEEK DRINKING WATER STUDY OF *o*-PHENYLENEDIAMINE DIHYDROCHLORIDE

Group		Control	500 ppm	1000 ppm	2000 ppm	4000 ppm	5000 ppm
Number of examined animals		10	10	10	10	10	10
pH	Grade						
	6.0	0	0	2 *	1 **	0 **	1 **
	6.5	0	1	3	4	9	4
	7.0	0	2	2	5	1	4
	7.5	6	2	1	0	0	1
	8.0	4	5	2	0	0	0
	8.5	0	0	0	0	0	0
Protein	—	0	0	0	0	0 **	0
	±	0	0	0	0	0	0
	+	5	8	2	1	0	1
	2+	5	2	8	9	10	9
	3+	0	0	0	0	0	0
	4+	0	0	0	0	0	0
Glucose	—	10	10	10	10	10	10
	±	0	0	0	0	0	0
	+	0	0	0	0	0	0
	2+	0	0	0	0	0	0
	3+	0	0	0	0	0	0
	4+	0	0	0	0	0	0
Ketone body	—	5	2	1	0 *	0 *	1
	±	5	8	7	7	8	7
	+	0	0	2	3	2	2
	2+	0	0	0	0	0	0
	3+	0	0	0	0	0	0
	4+	0	0	0	0	0	0
Occult blood	—	10	10	10	10	10	10
	±	0	0	0	0	0	0
	+	0	0	0	0	0	0
	2+	0	0	0	0	0	0
	3+	0	0	0	0	0	0
Urobilinogen	±	10	10	10	10	10	10
	+	0	0	0	0	0	0
	2+	0	0	0	0	0	0
	3+	0	0	0	0	0	0
	4+	0	0	0	0	0	0

Significant differen * : $p < 0.05$ ** : $p < 0.01$ Chi square test

TABLE 13 ORGAN WEIGHTS OF MALE MICE IN THE 13-WEEK DRINKING WATER STUDY
OF *o*-PHENYLENEDIAMINE DIHYDROCHLORIDE

Group Name	Control	500 ppm	1000 ppm	2000 ppm	4000 ppm	5000 ppm
No. of examined animals	10	10	10	10	10	10
Body weight (g)	30.8 ± 2.1	29.4 ± 2.3	28.1 ± 1.8 **	26.8 ± 1.4 **	24.3 ± 1.7 **	23.8 ± 0.9 **
Thymus (g)	0.038 ± 0.007	0.037 ± 0.007	0.034 ± 0.006	0.034 ± 0.004	0.030 ± 0.007 *	0.031 ± 0.003
Thymus (%)	0.122 ± 0.020	0.125 ± 0.019	0.120 ± 0.022	0.125 ± 0.013	0.120 ± 0.023	0.130 ± 0.012
Adrenals (g)	0.011 ± 0.002	0.011 ± 0.002	0.010 ± 0.003	0.010 ± 0.003	0.010 ± 0.002	0.010 ± 0.002
Adrenals (%)	0.034 ± 0.007	0.036 ± 0.006	0.036 ± 0.012	0.039 ± 0.010	0.040 ± 0.009	0.042 ± 0.010
Testes (g)	0.209 ± 0.040	0.220 ± 0.044	0.231 ± 0.022	0.226 ± 0.020	0.216 ± 0.023	0.179 ± 0.045
Testes (%)	0.677 ± 0.116	0.750 ± 0.150	0.827 ± 0.103	0.848 ± 0.101 *	0.888 ± 0.093 **	0.754 ± 0.196
Heart (g)	0.151 ± 0.013	0.149 ± 0.008	0.149 ± 0.014	0.143 ± 0.004	0.145 ± 0.130	0.135 ± 0.012
Heart (%)	0.493 ± 0.065	0.509 ± 0.040	0.529 ± 0.029	0.533 ± 0.023	0.598 ± 0.056 **	0.569 ± 0.050 **
Lungs (g)	0.168 ± 0.019	0.164 ± 0.009	0.158 ± 0.008	0.157 ± 0.010	0.150 ± 0.008 *	0.152 ± 0.008
Lungs (%)	0.546 ± 0.064	0.560 ± 0.047	0.564 ± 0.031	0.587 ± 0.037	0.619 ± 0.038 **	0.640 ± 0.036 **
Kidneys (g)	0.420 ± 0.023	0.460 ± 0.141	0.402 ± 0.030	0.415 ± 0.021	0.422 ± 0.019	0.421 ± 0.015
Kidneys (%)	1.368 ± 0.092	1.601 ± 0.652	1.432 ± 0.081	1.553 ± 0.096 *	1.740 ± 0.117 **	1.770 ± 0.100 **
Spleen (g)	0.048 ± 0.005	0.048 ± 0.005	0.047 ± 0.003	0.046 ± 0.008	0.046 ± 0.008	0.044 ± 0.007
Spleen (%)	0.157 ± 0.018	0.165 ± 0.019	0.166 ± 0.013	0.172 ± 0.029	0.190 ± 0.046	0.184 ± 0.028
Liver (g)	1.184 ± 0.044	1.149 ± 0.069	1.167 ± 0.089	1.187 ± 0.060	1.179 ± 0.126	1.213 ± 0.054
Liver (%)	3.857 ± 0.232	3.924 ± 0.216	4.152 ± 0.144 **	4.437 ± 0.147 **	4.835 ± 0.246 **	5.092 ± 0.193 **
Brain (g)	0.442 ± 0.009	0.431 ± 0.014	0.428 ± 0.018	0.438 ± 0.011	0.433 ± 0.019	0.427 ± 0.014
Brain (%)	1.441 ± 0.116	1.475 ± 0.141	1.527 ± 0.080	1.639 ± 0.094 **	1.786 ± 0.112 **	1.795 ± 0.079 **

Mean ± S.D.
 *) Significant difference, p<0.05 (Test of Dunnett)
 **) Significant difference, p<0.01 (Test of Dunnett)

TABLE 14 ORGAN WEIGHTS OF FEMALE MICE IN THE 13-WEEK DRINKING WATER STUDY OF *o*-PHENYLENEDIAMINE DIHYDROCHLORIDE

Group Name	Control	500 ppm	1000 ppm	2000 ppm	4000 ppm	5000 ppm
No. of examined animals	10	10	10	10	10	10
Body weight (g)	21.6 ± 1.7	21.3 ± 0.8	21.3 ± 1.1	21.1 ± 0.8	20.9 ± 0.8	20.5 ± 1.0
Thymus (g)	0.038 ± 0.004	0.037 ± 0.005	0.041 ± 0.007	0.041 ± 0.007	0.040 ± 0.007	0.039 ± 0.005
Thymus (%)	0.178 ± 0.018	0.173 ± 0.021	0.193 ± 0.024	0.193 ± 0.030	0.191 ± 0.027	0.190 ± 0.026
Adrenals (g)	0.014 ± 0.001	0.013 ± 0.001	0.013 ± 0.001	0.013 ± 0.002	0.013 ± 0.002	0.012 ± 0.002
Adrenals (%)	0.063 ± 0.006	0.062 ± 0.006	0.061 ± 0.007	0.061 ± 0.011	0.060 ± 0.010	0.060 ± 0.007
Ovaries (g)	0.032 ± 0.006	0.030 ± 0.009	0.033 ± 0.010	0.031 ± 0.007	0.026 ± 0.007	0.025 ± 0.007
Ovaries (%)	0.147 ± 0.027	0.142 ± 0.039	0.153 ± 0.050	0.147 ± 0.031	0.123 ± 0.030	0.119 ± 0.033
Heart (g)	0.126 ± 0.009	0.132 ± 0.010	0.128 ± 0.006	0.128 ± 0.009	0.119 ± 0.008	0.121 ± 0.011
Heart (%)	0.587 ± 0.052	0.620 ± 0.042	0.604 ± 0.046	0.608 ± 0.041	0.569 ± 0.036	0.591 ± 0.041
Lungs (g)	0.157 ± 0.009	0.156 ± 0.008	0.159 ± 0.009	0.155 ± 0.017	0.149 ± 0.010	0.144 ± 0.010 *
Lungs (%)	0.730 ± 0.059	0.732 ± 0.039	0.750 ± 0.048	0.736 ± 0.081	0.710 ± 0.035	0.701 ± 0.041
Kidneys (g)	0.281 ± 0.014	0.287 ± 0.015	0.309 ± 0.010	0.319 ± 0.013 **	0.334 ± 0.028 **	0.334 ± 0.026 **
Kidneys (%)	1.308 ± 0.091	1.351 ± 0.072	1.455 ± 0.096 **	1.510 ± 0.062 **	1.594 ± 0.126 **	1.630 ± 0.089 **
Spleen (g)	0.057 ± 0.008	0.052 ± 0.005	0.054 ± 0.005	0.052 ± 0.006	0.049 ± 0.004 *	0.048 ± 0.006 **
Spleen (%)	0.262 ± 0.026	0.244 ± 0.021	0.253 ± 0.015	0.247 ± 0.024	0.233 ± 0.021 *	0.234 ± 0.024 *
Liver (g)	0.927 ± 0.090	0.941 ± 0.057	0.946 ± 0.048	0.982 ± 0.056	1.000 ± 0.044 *	1.044 ± 0.064 **
Liver (%)	4.291 ± 0.119	4.424 ± 0.214	4.448 ± 0.156	4.651 ± 0.201 **	4.774 ± 0.107 **	5.095 ± 0.205 **
Brain (g)	0.462 ± 0.015	0.458 ± 0.017	0.460 ± 0.012	0.457 ± 0.017	0.439 ± 0.017 *	0.429 ± 0.027 **
Brain (%)	2.152 ± 0.157	2.153 ± 0.105	2.166 ± 0.134	2.167 ± 0.118	2.096 ± 0.075	2.094 ± 0.084

Mean ± S.D.

*) Significant difference, $p < 0.05$ (Test of Dunnett)

**) Significant difference, $p < 0.01$ (Test of Dunnett)

TABLE 15 INCIDENCES OF MALE MICE IN THE 13-WEEK DRINKING WATER STUDY
OF *o*-PHENYLENEDIAMINE DIHYDROCHLORIDE

Group		Control	500ppm	1000ppm	2000ppm	4000ppm	5000ppm
Number of examined animals		10	10	10	10	10	10
Organ	Grade of Nonneoplastic finding						
Findings							
Lung							
Granulation	1+	0	1	0	0	0	0
Thymus							
Atrophy	1+	0	0	0	1	0	0
Spleen							
deposit of melanin	1+	0	1	0	0	0	1
	2+	0	0	0	1	0	0
Liver							
Granulation	1+	2	5	2	1	3	2
Pancreas							
Necrosis:focal	1+	0	0	0	1	0	0
Kidney							
Basophilic change	1+	0	0	1	0	0	0
Hydronephrosis	1+	0	1	0	0	0	0
Urter							
Inflammatory polyp	2+	0	1	0	0	0	0
Testis							
Atrophy	1+	0	0	1	0	0	1
Grade	1+: Slight	2+: Moderate	3+: Marked	4+: Severe			
Significant difference	* : p<0.05	** : p<0.01	Chi square test for non-neoplastic lesion				

TABLE 16 INCIDENCES OF FEMALE MICE IN THE 13-WEEK DRINKING WATER STUDY OF o-PHENYLENEDIAMINE DIHYDROCHLORIDE

Group		Control	500ppm	1000ppm	2000ppm	4000ppm	5000ppm
Number of examined animals		10	10	10	10	10	10
Organ	Grade of Nonneoplastic finding						
Findings							
Liver							
Granulation	1+	6	3	6	4	5	7
Perivascular inflammation	1+	0	0	0	1	0	0
Parathyroid							
Cyst	1+	1	0	2	0	0	0
Spinal cord							
Epidermal cyst	1+	0	0	0	0	1	0
Grade	1+: Slight	2+: Moderate	3+: Marked	4+: Severe			
Significant difference	* : p<0.05	** : p<0.01	Chi square test for non-neoplastic lesion				