

Neuropathological outcome	Reported studies per species (n)	Corticosteroid	Total Dose (mg/kg)	Effect per outcome assessed and region of interest
Mineralo- and/or glucocorticoid receptor quantification (n=14)	<b>Rat (n=7)</b>			
	2000 Brabham (19)	DM	1,89	GR <sup>a</sup> - Hippocampus ↓
	2001 Welberg (21)	DM	0,70	GR and MR <sup>a</sup> - Hippocampus ↓ amygdala ↑
	2006 Shoener (32)	DM	0,78	GR and MR <sup>a</sup> - Hippocampus ↓, hypothalamus NS
	2008 Hossain (40)	DM	0,70	GR <sup>a</sup> - Paraventricular nucleus NS
	2008 Nagano (41)	DM	0,25	GR <sup>ab</sup> - Amygdala ↓, hippocampus NS, hypothalamus NS
	2011 Kjaer (48)	DM	1,60	GR and MR <sup>a</sup> - Hippocampus NS
	2018 Dong (75)	DM	2,40	GR <sup>a</sup> - Hippocampus ↑
	<b>Guinea Pig (n=3)</b>			
	2004 Banjanin (23)	DM	6,00	MR <sup>a</sup> - Hippocampus ↑; GR - Hippocampus NS
	2007 Owen (37)	BM	6,00	GR and MR <sup>a</sup> - Hippocampus NS, hypothalamus NS
	2007 Setiawan (38)	BM	5,00	GR and MR <sup>b</sup> - Hippocampus ↑ (females)
	<b>Sheep (n=3)</b>			
	2002 Dodic (22)	DM	0,78	GR and MR <sup>a</sup> - Hippocampus NS, hypothalamus NS
2008 Sloboda (43)	BM	0,50	GR <sup>a</sup> - Hippocampus NS; MR <sup>a</sup> - Hippocampus ↑	
2012 Li (51)	DM	0,42	GR and MR <sup>a</sup> - Hypothalamus ↑ Hippocampus ↑ (males)	
<b>NHP (n=1)</b>				
2010 Diaz (14)	DM	35	GR and MR <sup>a</sup> - Prefrontal cortex NS	
Neuron density or quantification (n=8)	<b>Rat (n=4)</b>			
	2006 Korzhevskii (15)	DM	2,00	Nissl - Paraventricular zone ↑
	2008 Hossain (4)	DM	0,70	NeuN <sup>c</sup> - Paraventricular nucleus NS
	2015 Shende (16)	DM	0,30	Hematoxylin– Hippocampus NS, amygdala NS, nucleus accumbens NS
	2018 Dong (7)	DM	2,40	Nissl - Hippocampus ↓
	<b>Mouse (n=3)</b>			
	2008 Noorlander (17)	DM	0,40	Nissl - Hippocampus NS
	2014 Noorlander (18)	DM	0,4	Nissl - Hippocampus CA ↑, Hippocampus dentate gyrus NS
	2017 Conti (19)	DM	0,25	NeuN <sup>c</sup> - Hippocampus DG ↓
	<b>NHP (n=1)</b>			
1994 Uno (20)	DM	10	Nissl - Hippocampus ↓, Frontal Cortex ↓	
Dendrite or Golgi quantification (n=9)	<b>Rat (n=8)</b>			
	2006 Bruschetti (21)	BM	0,34	Synaptophysin <sup>c</sup> - Hippocampus NS; MAP2 <sup>c</sup> - Hippocampus ↓
	2012 Oliveira (22)	DM	2,00	Golgi-Cox <sup>c</sup> - Stria terminalis ↑; amygdala ↓
	2012 Rodrigues (23)	DM	2,00	Golgi-Cox <sup>c</sup> - Nucleus accumbens ↓
	2014 Bustamante (24)	BM	0,34	Golgi-Cox <sup>c</sup> - Hippocampus ↓ dendrite length
	2014 Pascual (25)	BM	0,34	Golgi-Cox <sup>c</sup> - Cerebellum, Vermis ↓
	2015 Pascual (26)	BM	0,34	MAP2 <sup>c</sup> - ND; ↓ dendrite – Cerebellum NS, Vermis NS
	2016 Pascual (27)	BM	0,34	mGluR1 <sup>c</sup> - Cerebellum NS
	2018 Dong (7)	DM	2,40	Syn I <sup>b</sup> - Hippocampus NS
	<b>Mouse (n=1)</b>			
	2017 Conti (19)	DM	0,25	GFP <sup>c</sup> - Hippocampus DG ↓
Proliferation assessment (n=6)	<b>Rat (n=4)</b>			
	2006 Bruschetti (28)	BM	0,34	<sup>3</sup> H-Thy - ↑ Hippocampus, SVZ
	2007 Leão (29)	DM	0,20	BrdU <sup>c</sup> - ventral tegmental area ↓, nucleus accumbens ↓
	2006 Korzhevskii (15)	DM	2,00	PCNA <sup>c</sup> - Paraventricular zone ↓
	2018 Dong (7)	DM	2,40	Cyclin A, Ki67 <sup>c</sup> - Hippocampus ↓
	<b>Mouse (n=2)</b>			
	2008 Noorlander (17)	DM	0,40	Ki67 <sup>c</sup> - Hippocampus DG ↓
2014 Noorlander (18)	DM	0,40	Ki67 <sup>c</sup> - Hippocampus ↓	

<b>Astrocyte or microglia quantification (n=5)</b>	<b>Rat (n=2)</b>			
	2015 Shende (16)	DM	0,30	GFAP <sup>c</sup> - hippocampus NS, amygdala NS (↓ processes)
	2017 Caetano (30)	DM	2,00	Iba1 <sup>c</sup> - prefrontal cortex ↓
	<b>Mouse (n=3)</b>			
	2016 McArthur (31)	DM	1,30	Glutamine synthetase <sup>c</sup> - substantia nigra ↑, ventral tegmental area ↑
	2018 Frahm (32)	DM	0,70	GFAP <sup>c</sup> - paraventricular nucleus ↓ females ↑ males
<b>Apoptosis assessment (n=3)</b>	<b>Rat (n=1)</b>			
	2018 Dong (7)	DM	2,40	Caspase 3 <sup>c</sup> - hippocampus ↑
	<b>Mouse (n=2)</b>			
	2014 Noorlander (18)	DM	0,40	Caspase 3 <sup>c</sup> - hippocampus NS
	2016 McArthur (31)	DM	1,30	Caspase 3 <sup>c</sup> - substantia nigra, ventral tegmental area ↑
<b>Dopaminergic neuron quantification (n=11)</b>	<b>Rat (n=10)</b>			
	1997 Muneoka (33)	DM	0,15	Dopamine/DOPAC <sup>d</sup> - hypothalamus ↓, striatum, neocortex ↓
	2005 McArthur (34)	DM	0,10	Tyrosine hydroxylase <sup>c</sup> - substantia nigra ↑, ventral tegmental area ↑
	2007 McArthur (35)	DM	0,30	Tyrosine hydroxylase <sup>c</sup> - substantia nigra ↑, ventral tegmental area ↑
	2007 Leão (29)	DM	0,20	Tyrosine hydroxylase <sup>c</sup> - ventral tegmental area ↓, nucleus accumbens ↓
	2011 Oliveira (36)	DM	2,00	Dopamine <sup>ad</sup> - hypothalamus, nucleus accumbens ↓
	2012 Rodrigues (23)	DM	2,00	Tyrosine hydroxylase <sup>c</sup> - nucleus accumbens ↓
	2012 Oliveira (22)	DM	2,00	Dopamine <sup>a</sup> - amygdala ↓
	2013 Borges (37)	DM	2,00	Dopamine <sup>d</sup> - amygdala, nucleus accumbens ↓
	2014 Virdee (38)	DM	0,20	Tyrosine hydroxylase <sup>c</sup> - substantia nigra ↑, ventral tegmental area, striatum ↑
		2016 Virdee (39)	DM	0,30
	<b>Mouse (n=1)</b>			
	2016 McArthur (31)	DM	1,30	Tyrosine hydroxylase <sup>c</sup> - Substantia nigra ↑, Ventral Tegmental Area ↑
<b>Serotonergic neuron quantification (n=5)</b>	<b>Rat (n=5)</b>			
	1997 Muneoka (33)	DM	0,15	5-HT <sup>d</sup> - hypothalamus ↓
	2011 Oliveira (36)	DM	2,00	5-HT <sup>d</sup> - hypothalamus, nucleus accumbens ↓
	2012 Nagano (40)	DM	0,30	5-HT <sup>a</sup> - prefrontal cortex, hippocampus ↓
	2016 Hiroi (41)	DM	2,00	TpH2 <sup>a</sup> - dorsal raphe nucleus ↓ (females)
	2016 Virdee (39)	DM	0,30	5-HT <sup>d</sup> - prefrontal cortex NS, striatum NS
<b>GABAergic interneurons (n=2)</b>	<b>Rat (n=2)</b>			
	2012 Zuloaga (42)	DM	2,00	Calretinin <sup>c</sup> - amygdala ↓ (females)
	2015 Lui (43)	DM	0,80	Reelin <sup>a</sup> - hippocampus ↓
<b>Neurotransmitter (n=2)</b>	<b>Rat (n=2)</b>			
	2006 Velíšek (44)	BM	0,80	Neuropeptide Y <sup>c</sup> - hippocampus ↑
	2014 Iwasa (45)	DM	1,35	Neuropeptide Y <sup>a</sup> - hypothalamus ↓
<b>Other (n=2)</b>	<b>Rat (n=2)</b>			
	2010 Neigh (46)	DM	0,70	von Willebrand factor <sup>c</sup> - hippocampus ↓ amygdala NS
	2015 Frahm (47)	DM	0,70	Desmin <sup>c</sup> - paraventricular nucleus ↑
	2018 Liu (48)	DM	1,04	O-GlcNAc transferase <sup>ab</sup> - hippocampus ↓

\* BM betamethasone, DM dexamethasone

<sup>a</sup> Polymerase chain reaction or in situ hybridization, <sup>b</sup> western blot, <sup>c</sup> immunocytochemistry, <sup>d</sup> chromatography

**Table 3.** Neuropathological outcome measures reported on in selected studies with specific staining used. Results given as number (n) with statistically significant effect indicated as increased ↑, decreased ↓ or not significant NS.