

**TABLE 1** A summary of the results of some of the published reports (there are many more), which illustrate the beneficial effects of melatonin in experimental and clinical ischemia/reperfusion injury (stroke) in the brain and in the heart (heart attack). The majority of studies were performed using rodents as the experimental models

Reference	Species	Type/duration ischemia	Melatonin dose
Brain, animal			
Guerrero et al. <sup>185</sup>	Gerbil	10 min bilateral common carotid clamp	10 mg/kg BW
Kilic et al. <sup>186</sup>	Rat	120 min MCAO	4 mg/kg BW pinealectomy
Kilic et al. <sup>187</sup>	Mouse	90 min MCAO	4 mg/kg BW
Kilic et al. <sup>188</sup>	Mouse	90 min MCAO	4 mg/kg BW
Carlioni et al. <sup>189</sup>	Newborn rat	Permanent right common carotid ligation	15 mg/kg BW
Li et al. <sup>190</sup>	Rat	120 min MCAO	5 mg/kg BW
Zheng et al. <sup>191</sup>	Rat	90 min MCAO	5 or 10 mg/kg BW
Paredes et al. <sup>192</sup>	2, 6, 14 mon old rats	Permanent MCAO	10 mg/kg BW
Brain, human			
Fulia et al. <sup>193</sup>	Newborn	During difficult vaginal delivery	80 mg total (first 6 h after birth)
Aly et al. <sup>194</sup>	Newborn	Hypoxic ischemic encephalopathy	50 mg total (5 × 10 mg) + hypothermia
Heart, animal			
Tan et al. <sup>195</sup>	Rat heart ex vivo	10 min ligation of left anterior descending artery	Perfused with 1, 10 or 50 μmol/L
Petrosillo et al. <sup>196</sup>	Rat heart ex vivo	30 min global ischemia	Perfused with 50 μmol/L
Liu et al. <sup>197</sup>	Rat	10 min ligation of left coronary artery	2.5, 5 or 10 mg/kg
Yu et al. <sup>198</sup>	Rat	30 min ligation of left anterior descending coronary artery	10 mg/kg/7d 15 mg/kg
He et al. <sup>199</sup>	Mouse	30 min ligation of left coronary artery	150 mg/kg
Nduhirabandi et al. <sup>200</sup>	Rat heart ex vivo	30 min global ischemia	Perfused with 75 μg/L
Heart, human			
Gogener et al. <sup>201</sup>	Adult	Ischemia during abdominal aortic aneurism repair	Perfused with 50 mg for 2 h; 10 mg/3 d after surgery
Dwaich et al. <sup>202</sup>	Adult	Coronary artery bypass surgery	Oral 10 or 20 mg daily for 5 d

MCAO, middle cerebral artery occlusion.

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