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Glyphosate has been suggested to be an endocrine disrupting chemical capable of disrupting male reproduction. There are conflicting data, however, with studies reporting on effects from exposure to either glyphosate alone or to herbicide formulations, making comparisons difficult. We assessed rat testis histopathology and androgen function following two weeks exposure to either glyphosate at 2.5 and 25 mg/kg bw/day (5x and 50x Acceptable Daily Intake, ADI, respectively), or equivalent high dose of glyphosate in a herbicide formulation; Glyfonova. We observed no significant effects on testes or testosteron synthesis in rats exposed to glyphosate. Limited effects were observed in rats exposed to Glyfonova, with a small upregulation of the steroidogenic genes Cyp11a1 and Cyp17a1. We conclude that glyphosate alone has no effects on adult rat testes at exposure levels up to 25 mg/kg bw/day. Glyfonova induced only minor effects on steroidogenic gene expression, likely caused by additives other than glyphosate.

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