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The pivotal role of autophagy in the pathogenesis and therapy of medulloblastoma

Seidu A Richard ¹ ²

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Abstract

Medulloblastoma (MB) is the most frequent malignant brain tumor in children. MB originates from neural precursor cells in distinctive regions of the rhombic lip and their maturation occurs in the cerebellum or the brain stem during embryonal development. Autophagy is also referred to as selfeating' which is a catabolic process that often triggers cellular homeostasis through the salvaging of degenerated proteins as well as organelles. Autophagy influence cell survival via aberrant proteins that could accumulate within the cell and influence potential signaling and transport mechanisms. The role of autophagy in MB aggressiveness as well as tumorigenesis is a very complex process. This review targets specifically data reporting the key roles of autophagy in the pathogenesis and therapy of MB.

Keywords: autophagy; epigenetic; medulloblastoma; pathogenesis; signaling; therapy.

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