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# Possible Impact of Shunt Surgeries on the Spatial Learning of Congenitally-Blind Children

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**Abstract :** In various cases of visual impairments, the individuals are referred to expert Ophthalmologists in order to establish a correct diagnosis. Children with visual-impairments confront various challenging experiences in life since early childhood throughout lifespan. In some cases, blind infants, especially due to congenital hydrocephalus, suffer from high intra-cranial pressure and, consequently, go through a ventriculo-peritoneal shunt surgery in order to limit the neurological symptoms or decrease the cognitive impairments. In this article, a detailed description of numerous crucial implications of the V/P shunt surgery, through the right posterior-inferior parieto-temporal cortex, on the observed preliminary capabilities that are pre-requisites for the acquisition of literacy skills in braille, basic Math competencies, braille printing which suggest Gerstmann syndrome in the blind. In addition, significant difficultiesorientation and mobility skills using the Cane, in general, organizational skills, and social interactions were observed. The primary conclusion of this report focuses on raising awareness among neuro-surgeons towards the need for alternative intracranial routes for V/P shunt implantation in blind infants that preserve the right posterior-inferior parieto-temporal cortex that is hypothesized to modulate the tactual-spatial cues in braille discrimination. A second conclusion targets educators and therapists that address the acquired dysfunctionsin blind individuals due to V/P shunt surgeries.

**Keywords :** congenital blindness, hydrocephalus, shunt surgery, spatial orientation
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