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Editorial

Craniosynostosis and the Role of Neurosurgeons

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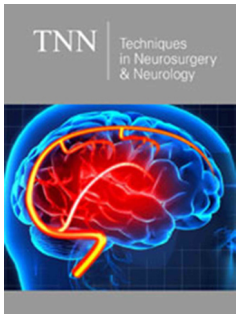

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Editorial

Craniosynostosis is the premature closure of one or more of the cranial sutures, which leads to skull deformities and other complications. Its prevalence is about 1 in 1800-2500 newborns [1,2]. Craniosynostosis can be classified to syndromic and non-syndromic. Non-Syndromic Craniosynostosis (NSCS) usually involves only one cranial suture. Coronal, sagittal and metopic craniosynostosis are common forms of NSCS.

Crouzon, Apert, Pfeiffer, Muenke, and Saethre Chotzen syndromes are the five most common types of syndromic craniosynostosis. While each has altered genetic anomalies, their symbolic outcome is turribrachycephaly, most often associated with bi coronal craniosynostosis. The role of prenatal screening and advising is rising, with relatives becoming active earlier than delivery. Multidisciplinary attention from delivery ahead includes different specialists like neurosurgeons, orthodontists, otolaryngologists, craniofacial surgeons, ophthalmologists, plastic surgeons, anesthesiologists, pathologists, psychiatrist, speech therapists, and geneticists.

The main objectives of craniosynostosis reconstructive surgeries are to treat skull deformities and their potential complications, psychosocial and aesthetic considerations. There are different operative techniques to treat patients of UCS and MS in the literature ranging from a minimal endoscopic suturectomy to calvarial bone remodeling and noninvasive procedures to distraction osteogenesis [3-5]. The selection of each technique depends on the type of abnormality, experience of surgeon and severity of accompanying deformities [6-8]. To compare many variables of the procedure with what we can find in literature, some similarity and matching of demographic data and surgical technique should be considered. Different surgical techniques have very different times of surgery and blood loss. The lower age of the patient makes the surgeon choose a simpler procedure such as endoscopy and older the patient, more extensive surgery to be selected [9,10].

Neurosurgeons are the main part in the diagnosis and treatment of patients with craniosynostosis. In fact, neurosurgical techniques can reverse skull deformities and prevent complications like increased Intra Cranial Pressure (ICP). In addition, the role of neurosurgeons in treatment of patients with craniosynostosis covers further than handling children in medical practice and contains research, education and preparation, and support advantages to encourage context-specific, evidence-based creativities to community health difficulties.

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