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SAUNDERS

P284

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*Background:* In Traditional Chinese acupuncture, acupoints on the body surface are linked through 14 meridians to various organs of the human body.

*Objective:* To study the efficacy of TAC in affecting visual recovery in children with visual disorders.

*Methodology:* A total of 13 children (5 boys, 8 girls) with age range of 15 months-14.5 years having visual disorders with static functional visual ability for at least 2 years were recruited. The causes for cortical visual impairment ( $N = 10$ ) included: severe perinatal asphyxia (4), post encephalitis (1), traumatic brain injury (1), hydrocephalus (1), increased intracranial pressure (3). As for peripheral causes ( $N = 3$ ), these were due to congenital optic atrophy (2) and retinal disease in Pearson syndrome (1). The assessment tools used were:

1. Clinical Visual functional outcome scale of 0-5 (positive outcome if improvement in 1 level in a functional scale)
2. Visual evoked potential (positive improvement means 10% improvement in P100 latency of any eye) ( $N = 13$  performed)
3. FDG-PET Brain scan (positive improvement means 10% increase in glucose metabolism in occipital lobes) ( $N = 6$  performed)
4. Clinical Global Impression Scale (Parental report)

TAC consisted of a total course of 100 sessions daily for 6 months.

*Result:* Three showed clinical functional visual improvement (23%). Six had improvement in VEP (46%) and 5 had improvement in PET glucose metabolism in the visual cortex (83%). Eight parents (62)% reported improvement (3 had 75% improvement; 4 had 25% improvement). There was no correlation between clinical visual outcome and improvement in VEP or PET. Neither were there any correlation between cause or severity with VEP or PET improvement using Fisher's exact test.

*Conclusion:* We have demonstrated that Acupuncture can improve the visual status of children with visual disorders, both peripheral and central in origin.