

ABSTRACT

Cerebral palsy is a group of non progressive motor impairment syndrome that begins in childhood and caused by damage to the motor control centers of the young developing brain. Bone age is a way of describing the degree of maturation of the child's bone, it is the average age at which children reach this stage of bone maturatin. Skeletal maturation has been shown to be altered in children with CP. The aim of the present study was designed to assess bone age in children with different types of CP, and it was conducted on forty children with CP. X-ray of the left wrist and hand was done to all children included in the study and bone age was assessed according to Greulich and Pyle atlas method. Statistical analysis for the data was done including descriptive statistics and significant was determined as $p < 0.05$. The result of the present study revealed that, there is delayed bone age in comparison with the chronological age of the children with CP. Also, indicates that the degree of delayed bone age could be related to the degree of motor dysfunction according to Gross Motor Function Classification System. Where, higher degree of motor dysfunction (level IV, V in GMFCS) is usually accompanied by more delay in born age than level II, III where most of the children are ambulant.

List of Abbreviation

BA.....	Bone Age
CA.....	Chronological Age
CP.....	cerebral palsy
CT.....	Copmuterized Tomography
EEG.....	Electroencephalogram
EMG.....	Electromyelogram
EMPP.....	Early Motor Pattern Profile
GMFCS.....	Gross Motor Function Classification System
GP method.....	Greulich and Pyle method
MRI.....	Magnetic Resonance Image
PVL.....	peri-ventricular leukomalacia
ROIs.....	Twenty Regoins Of Interest
SCPE.....	Serveillance of Cerebral Palsy in Europe
TW2.....	Tanner and Whitehouse method

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دراسة التغيرات التي تحدث في نمو العظام في الأطفال المصابين بالشلل الدماغي

رسالة

توطئة للحصول على درجة الماجستير في دراسات
الطفولة

قسم الدراسات الطبية - ذوي احتياجات خاصة

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**Study of the Alteration in Skeletal
Maturation in Children
with Cerebral Palsy**

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