

**PERBANDINGAN TINGGI, PANJANG DAN LEBAR KEPALA ANTARA
PENDERITA SINDROMA DOWN DAN ANAK NORMAL USIA 12-18
TAHUN**

**(THE DIFFERENCE OF HEIGHT, LENGTH AND WIDTH OF THE HEAD
BETWEEN DOWN SYNDROME AND NORMAL CHILD IN THE AGE
RANGE 12-18 YEARS)**

ABSTRACT

Background. Down syndrome is the most frequent chromosomopathy in man, which is the cause of mental retardation. Today it is well known that Down syndrome is specific, trisomy 21 defined syndrome with multiple congenital anomalies and mental retardation. More than 100 different characteristic signs for Down syndrome have been reported, of which the majority is in the craniofacial region. The most important common signs of Down syndrome are small brachycephalic head, flat skull, epicanthal folds, plainly formed ears, wide nasal ridge, open mouth with protruding large. **Purpose.** The aim of this study was to determine height, length, and width of the head which discriminate a Down syndrome population and normal child in the age range 12-18 years. **Method.** The study was performed on a sample of 30 subjects (15 males 15 females) with Down syndrome in 12-18 years old and on a sample of 30 subjects (15 males 15 females) from normal child in 12-18 years old. The measured values of all subjects were expressed by mean and standard deviation then were analyzed by t-test with $\alpha = 0,05$. **Results.** There were significant difference of height, length, and width of the head between Down syndrome and normal child both males and females group. In Down syndrome population, there were significant difference of length and width of the head between males and females, but were not in height of the head. In normal child, there were not significant difference of height, length and width of the head between males and females. **Conclusion.** Height, length and width of the head of Down syndrome population's were smaller than normal child in 12-18 years old, both males and females group. In Down syndrome population, male have length and width of the head which were bigger than female but there was no difference in height of the head. In normal population, this study showed males have bigger height, length and width of the head than female even there were no significant difference.

Keywords: Down syndrome, normal population, height of the head, length of the head, width of the head