

## *Mu Opioid Receptor Gene (OPRM 1) Polymorphism in Patients with Opiate Use disorder*

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### *Abstract*

**Introduction:** Opiates are considered among the most addictive illicit drugs. OPRM1 gene encodes the  $\mu$  opioid receptor. The rs6912029 [G172T] Single nucleotide polymorphism appears to be associated with changes in the receptor's function.

**Objectives:** A comparative cross sectional study aimed to compare the presence or absence of polymorphism in Mu opioid receptor gene (OPRM1) in 40 patients with opiate dependence and 40 healthy controls and detect the relation between some clinical variables and the presence of (OPRM1) gene in patient group.

**Methods:** A sample of blood from both groups were genotyped for rs6912029 [G-172T]. The sensation seeking scale (SSS) was applied for both groups. The Addiction severity index scale (ASI) and (ASSIST) Scale were applied for cases only.

**Results:** No statistically significant difference was found between both groups ( $p = 0.348$ ) as regards the presence of polymorphic OPRM1 gene (GT) and the frequency of G and T alleles between both groups, however, the frequency of G allele in cases (88.8%) was higher than T allele (11.2%). A statistically significant difference between the two groups ( $p = 0.001$ ) as regards the impulsivity and sensation seeking trait which was higher in the patient group ( $6.9 \pm 2.4$ ).

**Conclusion:** The presence of the polymorphic gene (GT) has no effect on the type of the opiate used, the clinical data, severity of opiate dependence and the response to treatment of the patients, however, opiate dependent patients showed higher levels of impulsivity and sensation seeking traits.



### *Biography:*

Nehal Mostafa Ahmed Attia has completed her Master degree at age of 28 and her PhD at the age of 32 years from Cairo University and postdoctoral studies from Cairo University School of Medicine. She is a lecturer at Cairo University School of Medicine. She is also a member of the Egyptian Psychiatric Association. She has published two papers in reputed journals. She attended many international conferences and had poster presentations in the Depression, anxiety and stress management conference in London (April 2019) 36th international conference on psychosomatic disorders in Italy (September 2019), Abu Dhabi international mental conference (October 2019).



### *Speaker Publications:*

1. Mostafa Nehal ; Mobasher Maha; El Baz Heba.; Khalil Mohamed (2019): Mu Opioid Receptor Gene (OPRM 1) Polymorphism in Patients with Opiate Use disorder: Journal of Addictive Disorders & their treatments Vol publish ahead of print.

2. Mostafa, Nehal; Latif, Ahmed A.; Madbouly, Nagwan; Hussein, Hoda Abdou; Fakhry, Hala; Aly El-Gabry, Dina M (2017): Impact of primary nocturnal enuresis on the quality of life in the Egyptian mothers: a case-control study. Middle East Current Psychiatry, 24:191-198

[7th World Congress on Mental Health, Psychiatry and Wellbeing](#); March 27-28, 2020 Barcelona, Spain | Webinar.

### *Abstract Citation:*

Nehal Mostafa Ahmed Attia, Mu Opioid Receptor Gene (OPRM 1) Polymorphism in Patients with Opiate Use disorder, Annual Mental Health 2020, 7th world congress on mental health, psychiatry and wellbeing; March 27-28, 2020 Barcelona, Spain | Webinar.

(<https://annualmentalhealth.psychiatryconferences.com/abstract/2020/mu-opioid-receptor-gene-oprm-1-polymorphism-in-patients-with-opiate-use-disorder>)