



OCP USAGE AS A RISK FACTOR FOR CVT IN YOUNG WOMEN

General Medicine

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ABSTRACT

AIM OF THE STUDY : To access the risk of CVT in OCP users **PATIENTS AND METHODS:** Cross sectional study done in about two years and included 30 female patients aged 20-50. All patients diagnosed with CVST based on MRI, MRV study **RESULT :** Among the 30 patients in the study OCP consumption was found as risk factor in 60% patients with CVT. All patients presented with headache as the primary clinical symptoms. Transverse sinus is common location followed by sagittal sinus **CONCLUSION:** Short term OCP consumption is the most common cause of CVT in young women

KEYWORDS

INTRODUCTION:

Women are using oral contraceptive pills (OCPs) on a daily basis at higher rates due to their comfort level [5]. OCPs are used for the treatment of many illnesses and are well-known as an efficient form of contraception. Because oral contraceptives contain estrogens, which raise coagulation factor levels and lower anticoagulant protein levels such antithrombin and proteins, they appear to increase the risk of cerebral venous sinus thrombosis (CVST). Several observational studies have shown that females who ingested OCPs had a five-to 22-fold higher incidence of CVT. Third-generation combination hormonal contraceptives (CHCs) with desogestrel or gestodene are said to carry the highest risk of CVT among the different kinds of CHCs. Stroke is still frequently caused by cerebral venous sinus thrombosis (CVST), which occurs in the cerebral venous sinuses or cerebral veins [4]. It is a potentially fatal illness because of its wide range of clinical manifestations, which range from mild seizures to death [5]. The most sensitive method for diagnosing dural sinus thrombosis is to combine magnetic resonance imaging (MRI) with magnetic resonance venography (MRV).

The aim of this work is to assess the risk of CVST in OCP users compared with non-hormone users.

MATERIALS AND METHODS:

This cross sectional study was done in A.C.S medical college Chennai during 2022-2024 on 30 patients aged 20-50 years diagnosed as CVT by clinical and MRI, MRV findings.

Detection of cut off point or filling defect in the related sinus in MRV is necessary for confirmation of CVT Diagnosis by MRI.

Detailed history of OCP consumption, its duration and type of OCP based on estradiol consumption were taken short term OCP consumption defined as using OCP in recent 3 months

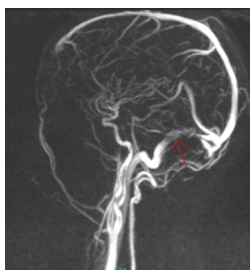


Fig.1. Cerebral MR venography time of flight (TOF) sequencing in sagittal section showing intra luminal filling defect in right transverse sinus (arrow)

RESULT :

30 Female Patients with a mean age of 35.2, ranging 23-49 years, were admitted with CVT. Table 1 represents the clinical presentation of the patients presented with Multiple symptoms ranged from headache to loss of consciousness, all of them presented with headache (100%), vomiting (12%), seizures (3.3%), loss of consciousness (3.3%), neck pain (6.6%). Multiple causes were found in 32% of the patients. OCP consumption was found as a risk factor in 60% of females (18/30) with CVT. Short term OCP consumption was found in 46.6% of females, This group of females had used LD (35 µg ethinyl estradiol and 0.3 µg progesterone) and HD (50 µg ethinyl estradiol and 0.5 µg norgestrel) types of OCP in 96.6% and 3.3%, respectively [2]

TABLE 1 : Clinical presentation of patients

SYMPTOMS	NO.OF PATIENTS	PERCENTAGE
Headache	30	100%
vomiting	12	40%
seizures	1	3.3%
loss of consciousness	1	3.3%
neck pain	2	6.6%

TABLE 2 : Etiology of cerebral venous thrombosis in 30 patients

ETIOLOGY	PERCENTAGE
OCP	60%
Dehydration	10%
Hypercoagulable state	13.3%
Postpartum	6.6%
Other causes	10%
Multiple causes	13.3%

DISCUSSION:

Numerous studies have demonstrated a fourfold increase in the incidence of venous thrombosis and arterial thrombosis related to the use of OCP. There have been reports of an increased incidence of CVST due to the use of oral contraceptive pills (OCP).

30 patients diagnosed as CVST by MRI were included in our study, we found that dural sinus thrombosis is a common complication of oral contraceptive pills, 60% of patients who diagnosed with CVT had

history of short term usage of OCP's this coinciding with the study of Khaladkar et al [3].

Our results showed 100% CVST patients presented with headache and these results coincided with those of Hassan et al.[1] and Christo et al.[6]

MRV results of patients showed that transverse sinus is most common location followed by superior sagittal sinus[1]

CONCLUSION :

OCP usage is the most common risk factor in young females who are diagnosed with CVT.

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