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AYURVEDIC UNDERSTANDING AND MANAGEMENT OF "GILLES DE LA TOURETTE SYNDROME" IN CHILDREN; A CASE REPORT

Ayurveda

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ABSTRACT

Tourette syndrome is a neuropsychiatric disorder characterized by the presence of both motor and phonic tics. Genetic and environmental factors play a major role in the pathogenesis of Tourette syndrome. The treatment is mainly divided into behavioural therapy and pharmacotherapy. The case report is about a 13 year old male child who is brought to the pediatric OPD with the complaints of involuntary meaningless jerky movements on the right side of the face near lips and over the right elbow joint with hand extension which manifests once in every 2 seconds. He also complaints of throat clearing once in every 10 seconds.The case was diagnosed as Tourette Syndrome in modern. Tics being the hallmark feature of this case can be understood under *Akshepaka* spectrum in *Ayurveda*.However there is a role of *manas* and *hrudaya* in this case and tics is understood as a behavioural disorder. Therefore the case is diagnosed as *Unmada* with *Cheshta vibhrama* as a major symptom. Both *Akshepaka* and *Unmada chikitsa* were incorporated in this case and significant results were observed in the onset frequency and intensity of tics after 15 days of treatment.

KEYWORDS

Akshepaka, Cheshta Vibhrama, Tourette syndrome, Unmada

INTRODUCTION

"Gilles de la Tourette syndrome" (GTS) is combination of motor as well as vocal tics presenting for more than 1 year with the onset before the age of 18 year. GTS is observed in 1% of school going children, more common in boys and male to female ration is 4:1.[1]The main characterstic feature of Tourette syndrome is the presence of Tics. Tics are involuntary meaningless jerky movements. Basically tics are of 2 types – simple and complex. Each is again subdivided into motor and vocal/phonic tics. Examples of simple motor tics include eye blinking, squinting, eye rolling, facial grimaces, shoulder shrugging, arm extending, mouth opening, nose twitching, lip licking, head jerks etc. Complex motor tics include pulling of clothes, touching people/objects, smelling fingers/objects, jumping/skipping, kissing self/others, toe walking, flapping arms, self injurious behaviour, biting etc. Simple phonic tics include throat clearing, yelling/screaming, grunting, snorting, sniffing, barking, laughing, whistling, humming etc. Complex phonic tic include unusual change of pitch and volume of voice, repetition of sounds, stuttering etc. Tics are associated with co morbidities such as ADHD, OCD, ASD, or associated learning disorder. The QoL will be hampered in such patients with comorbidities.

Aetiology

Genetic and environmental factors play a major role in the manifestation of Tourette syndrome. Enviromental factors include ante natal and peri natal factors such as any difficulties during pregnancy, smoking, exposure to infection, birth complications etc.Diagnosis is based on detailed history of tics and family history of other co morbidities such as ASD, ADHD, OCD etc should be ruled out. Tics should be differentiated from involuntary movements of other neurological disorders such as Athetoid cerebral palsy, Huntingtons chorea, spasmodic torticollis etc.

Management

Management is based on a combination of behavioural therapy and pharmacotherapy.For mild to moderate tics, behavioural techniques include Exposure and Response Prevention (ERP), Habit Reversal Therapy (HRT) and Comprehensive Behavioural Intervention for Tics(CBIT).The medications include alpha adrenergic agents such as clonidine or guanfacine. They are used for moderate to severe tics causing distress to the patient. Antipsychotics such as Risperidone, aripiprazole, haloperidol in small doses are also recommended.

Case Details:

A 13 year old male child was brought to the pediatric OPD by his parents with the complaints of involuntary, episodic, jerky movements on the right side of the face near lips and over the right elbow joint with hand extension which manifests once in every 2 seconds. He also c/o throat clearing once in every 10 seconds. The duration of both the complaints was 12 years. According to the parents' words the symptoms aggraeavate once he gets tensed, during sleep deprivation and also after getting tired. Both the motor and vocal tics were found absent during sleep. He is under allopathic medication for the same complaints but showed no change in the symptoms. The concurrent medications are Tab Livogen and Tab Clono. There was no history of any complications during ante natal and perinatal period as per the parents. The child was a full term baby born through normal delivery without any signs of asphyxia/hypoxia. He had history of Jaundice at the age of 3 years. The family history revealed nothing specific. There was no other co morbidities such as ASD,ADHS,OCD etc.

The case was diagnosed as Tourette syndrome after analysing the nature of tics, history and ruling out other possible neurological disorders. It was diagnosed as *Vataja Unmada* in *Ayurveda* based on the symptomatology. The *samanya Unmada lakshana* such as *Cheshta vibhrama* and *Aachara vibhrama* were clearly evident in the case. Since the condition presented with involuntary meaningless jerky movements, *Akshepaka* was also included in the differential diagnosis. Hence both *Vataja Unmada* and akshepaka were incorporated together in the case.The patient came for op consulation and *shamana oushadhis* were advised for a period of 2 weeks.The *dosha dushya* analysis was judiciously done. The *dosha* include *Vyana* and *Prana Vata* with *mastulunga majja* as the *dushya*. No evidence of kapha or pitta were observed. Hence the condition was understood to be *kevala vatika*.The *vyanjaka hetus* or triggering factors include *bhaya shoka ratri jagarana* which again clearly indicated the role of *vata dosha* as well as the manas. So the treatment was mainly focused on *vata shamana* and correcting *mano doshas*.

The oral medicines advised as a first line of management include.
1. Bhadradarvyadi Kashayam – 15 ml -0-15 ml with 45 ml boiled and cooled water before food.
2. Dhanwanataram Gulika – 1-1-1 before food with *jeeraka jala*
3. Partharishtam + Balarishtam – 7.5 ml each morning and night after food with 15 ml normal water

In the second visit after 15 days the patient showed significant improvement the onset and frequency of both motor and phonic tics. The frequency was reduced from once in 2 seconds to once in 10 minutes. The intensity of the tics was also reduced significantly.

In the second sitting, *Kalyanaka ghrita* 10 ml in empty stomach in the morning was added along with the previous medications.

DISCUSSION:

In this case the patient presents with c/o both motor and vocal tics. It is understood as a behavioral disorder and one among the triggering factor in this case is stress. There is no direct correlation for Tourette syndrome in Ayurveda. Since the hallmark presentation in this case is tics, which is a movement disorder, it can be understood under the spectrum of *Akshepaka*. However in *Akshepaka* the patient will be presenting with convulsions. Moreoever in *Akshepaka* there is an invariable involevement of *sira snayu* and *kandara* which is again absent in this case.[2] So *Akshepeka* can be a differential diagnosis in this case. Tourette syndrome is understood as a neuropsychiatric disorder in modern science. After considering the behavioural issues in this case it can be more clearly understood and studied under the heading of *Unmada*. *Achaya Charaka* in *Unmada nidana* mentioned *Cheshta*

vibhrama as a *samanya lakshana* of *unmada*.[3] *Acharya Chakrapani* had clarified the definition of *Cheshta vibhrama* as *Anuchita Cheshta* i.e abnormal movement. Moreover in *Umada samprapthi* there is a clear cut presence of *alpa satvam , hrudaya , bhaya* and *mano abhighata*. In this case the patient is a child and the development of motor tics started at one year of age which shows the role of *alpa satva*. Hrudaya is invariably involved in this case as there is a *dushti* for *vyana vata* characterized by the presence of involuntary movements.*Bhaya* is again another factor for *vyana vata prakopa* in this case. It is also a *vyanjaka hetu* in this case. *Bhaya* can also be understood as an environmental factor in the pathogenesis. Hence in this case considering the *samprpathi* and *lakshanas*, both *akshepaka* and *unmada chikitsa* were integrated. *Bhadradarvyadi kashayam* is explained in the context of *Akshepaka chikitsa*.[4] *Partharishtam* was advised considering *vyana vata dushti* and *hrudaya* as a *sthana samshraya* in the *samprapthi*. Since the *Avastha* is *kevala vatika*, *Balaratishtam* was advised as a *brumhana chikitsa*. *Dhanwanataram Gulika* was administered with the purpose of *vata anulomana*. *Kalyanaka ghrita* in first follow up was advised as it is indicated in *vataja unmada chikitsa*.[5]

CONCLUSION:

Tourette syndrome is characterized by involuntary meaningless jerky movements called tics. Tics alone as a movement disorder can be understood under *Akshepaka* spectrum in Ayurveda. However considering the case as a neuro behavioural disorder, it is better correlated with *Unmada*. Tics can be understood as a *Cheshta vibhrama*. Both *Akshepaka* and *Unmada* line of management were incorporated in this case and the patient showed significant improvement in the symptoms.

REFERENCES:

1. Valsamma Eapen, Tim Usherwood, Tourette syndrome in children, Journal Article, Australian Journal for General Practitioners ,The Royal Australian College of General Practitioners (RACGP) ,volume 50 ,Issue 3,March 2021
2. Agnivesha, Charaka Samhita, chikitsa sthana, chapter 28, verse51-52, Varanasi: Chaukambha Sanskrit Samsthan, fifth edition; 2001 p.619
3. Agnivesha, Charaka Samhita, Nidana sthana, chapter 7,verse 5, Varanasi: Chaukambha Sanskrit Samsthan, fifth edition; 2001 p.223
4. Vagbhata, Ashtanga Hrudaya, Chikitsa sthana, chapter 21,verse 28, Varanasi: Chaukambha Surabhi Prakashan; 20172004 p.724
5. Agnivesha, Charaka Samhita, chikitsa sthana, chapter 9, verse 33-41, Varanasi: Chaukambha Sanskrit Samsthan, fifth edition ; 2001 p.471