

Medical Problems of Patients with Down syndrome in Pandaravilai Village, Thoothukudi District

Dr. T. Sakthika¹, Ms. J. P. Kani Gaarthini²

¹Assistant Professor of Zoology, A. P. C. Mahalaxmi College for Women, Thoothukudi, Tamilnadu, India

²I B. Tech, Plastic Technology, Central Institute of Petrochemicals Engineering and Technology, Guindy, Chennai, Tamilnadu, India

ABSTRACT

Pandaravilai village in Eral Taluk of Thoothukudi District has about 25 Down syndrome (DS) patients at the age of 15-25. The Down syndrome patients were directly analysed to study their health problems. More than 80% patients have health problems include untreated congenital heart anomalies, pulmonary hypertension, recurrent respiratory infections leading to chronic pulmonary interstitial changes, adult-onset epilepsy, osteoarthritic degeneration of the spine, acquired sensory deficits including loss of vision due to early onset of adult cataracts, recurrent keratitis and significant hearing loss. Behavioural problems, pose ongoing challenges for care. Further efforts are needed to diagnose and treat medical problems in people with DS and the village should be recognized by the government and policy makers to support the life of the patients.

Keywords: Down syndrome, Pandaravilai, Village, Medical problems, Government recognition.

INTRODUCTION

In the world, 1 in 800 children are born with this syndrome. The total number of people affected globally is estimated at around 40-50 million (Rahi, *et al* 2001). Down syndrome (DS) was first identified in 1866 by the English physician John Langdon Down (Allt and Howell, 2003 and Kliegman, 2011). Until recently, most persons with DS died in early adulthood of congenital heart defects, pneumonia, or other types of respiratory infections (Bittels, *et al* 2007). Better treatments of these comorbidities have lengthened the lifespan of people with DS from the age of 25 years in the 1980s to over 50 years today.

Down syndrome is characterized by low muscle tone, short stature, upward slanting eyes, a flattened nose, small ears and a single crease across the palm of the hand. Health problems associated with the disorder include poor dentition, celiac disease, and constipation (Kliegman, 2011).

DS is found in all races, nationalities, religions or socio-economic levels Bittels, *et al* 2007). The life expectancy and quality of life for affected people have increased remarkably due to improved medical care, general awareness, as well as increased social interactions (Tracy, 2011). The estimated life expectancy of persons with DS has increased from just 12 years in the 1940s to an average of 55–60 years in the present decade, particularly in developed countries. It is essential to follow the health needs of individuals with intellectual disabilities should be viewed from the perspective of current standards of care and management.

Pandaravilai village in Srivaikundam Taluk of Thoothukudi District have about 25 Down syndrome patients at the age of 15-25. They have no educational facilities and medical facilities. They are suffered by Congenital heart diseases, Visual defects, Diabetes, Arthritis, Obesity, Epilepsy and Thyroid disorders. Fifty percent of Down syndrome patients have single parents. They are uneducated and aged with poor income as most of them are coolies. They suffer very tediously to take care of their Down syndromic son or daughters. This study is to expose the patients to the eyes of Government organizations for the wellbeing of the poorly suffered Down syndrome patients.

Aim of the Study:

- Survey of Down syndrome patients in Pandaravilai Village,
- Analysis of Medical complications
- To address the issues to be recognized by the Government and policy makers.

Study Area:

Pandaravilai village consists of Seven sub villages located in Srivaikundam Taluk of Thoothukudi district, Tamil Nadu. Pin Code: 628 751. This village and its surrounding areas have approximately 25 patients of Down syndrome.



AGE: 25. I.Arunkumar, S/O A.Iyan Pandi, Poochendu, 5/3 Thakkar Iyar Theru, Pandaravilai post, Pin 628751, Thoothukudi Dt.



AGE:13 Varshini, D/O R.Deivandran, 4/1, Suyambulinga Swamikoil Theru, Pandaravilai post, Pin 628751, Thoothukudi Dt.



AGE: 21. K.Yogesh, S/O V.Kanthalasami, 1/2A, Pillaiyar Koil Theru, Pandaravilai post, Pin 628751, Thoothukudi Dt.



AGE: 26. L.Umamageshwari, D/O. L.Poochendu, 4/1, Pillaiyar koil theru, Pandaravilai post, Pin 628751, Thoothukudi Dt.



AGE: 20. L.Karthika selvi, D/O. L.Poochendu, 4/1, Pillaiyar koil theru, Pandaravilai post, Pin 628751, Thoothukudi Dt.



AGE: 30. S.Banumathi, D/O. S.Parmmasakthi, 10/17, Mannarayan thattu, Melatheru, Pandaravilai post, Pin 628751, Thoothukudi Dt.

Figure -1 Down syndrome patients in Pandaravilai

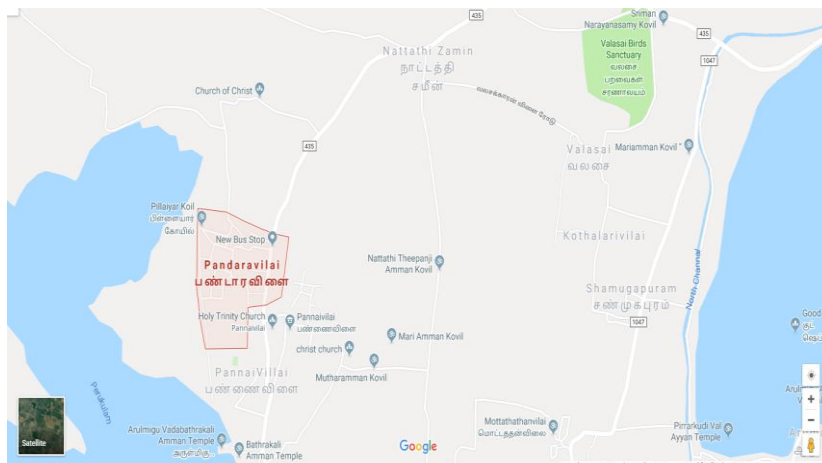


Figure 2-Location Map of Pandaravilai Village

Table -1 Results of Health Care Checkup List for Down Syndrome Patient

S.No	Type of medical complications	Number	Percentage
1.	Congenital heart diseases	20	80
2.	Hearing loss	18	72
3.	Visual impact (Cataract, Vision loss)	21	84
4.	Thyroid	15	60
5.	Stomach or bowel problems	18	72
6.	Sleep issues	14	56
7.	Skin	17	68
8.	Dental anomalies	25	100
9.	Behavior and mental health	25	100
10.	Diabetes	20	80
11.	Alzheimer's type dementia	17	68
12.	Depression	8	32
13.	Psychological problems	16	64
14.	Blocked nasal passages	5	20
15.	Widely spaced big toes	25	100

DISCUSSION

In Pandaravilai village 50% of patients with Down syndrome suffers from hypotonia, excessive joint flexibility, an increased risk for obesity, short limbs, and neurological and language development delays. Approximately 40-50% of Down syndrome patients in pandaravilai village have congenital heart defects.

DS is a multisystem disorder that affects the individual physically, medically and psychologically. The physical features (Tracy, 2011) include brachycephaly (disproportionately shorter or small head or skull shape), unusually round face, short neck, low-set, small ears, flat nasal bridge, microgenia (an abnormally small chin), macroglossia (protruding or oversized tongue) due to small oral cavity, small chin, almond shape to the eyes caused by an epicanthic fold of the eyelid and oblique palpebral fissures.

In the study area all the patients with DS have complaint of spacing between teeth in the upper as well as the lower jaws. The patients are moderately built and have mild degree of mental retardation. They have most of the common dysmorphic features of Down syndrome like short palpebral fissures, epicanthic folds of the eyelid causing almond shaped eyes, mongoloid slant, hypertelorism, depressed nasal bridge and bilateral clinodactyly. The patient also presented with short neck and abnormally shaped ears, small hands and feet, deep crease in the palm of the hand, poor muscle tone and with excessive space between large toe and second toe.

Neurologic dysfunction, including seizures, very dry skin, which may be a sign of hypothyroidism and other skin problems are observed in 75% of observed patients with Down syndrome.

All the female patients in Pandaravilai village have irregular menstrual cycle. Menstrual problems are common and frequently disruptive to both patients and caregivers. The prevalence of physical, psychological and sexual abuse is greater in people with intellectual disabilities. Because of the inability of some patients with intellectual disabilities to verbalize abuse, sexual abuse may be diagnosed only via physical or behavioral Symptoms. Preparation and education beginning at approximately age 10 using visual aids would be helpful for them.

In all aspects of care, the health needs of individuals with intellectual disabilities should be viewed from the perspective of current standards of care and management, while making adjustments to match their individual needs and medical conditions. Most of these issues are now treatable, so people with Down syndrome also can lead healthy lives if they offer medical support.

Pandaravilai village consists of seven sub villages located in Srivaikundam Taluk of Thoothukudi district, Tamil Nadu, Pin Code: 628 751. Pandaravilai village has about 25 Down syndrome patients at the age of 15-25. They are hardly surviving with hearing and vision problems, heart diseases, respiratory problems, Ear infection, Sleep apnoea, risk of leukaemia, musculoskeletal disorders and thyroid conditions.

They are guarded by poor, uneducated parents. Fifty percentages of them have single parents and most of them are cooloies. If the Government and Policy makers help them to provide medical support and guidance their survival will be peaceful.

CONCLUSION

Many charity and voluntary organizations offer support, advice, information and financial help for children with Down syndrome and their families. All these helps are presently availed only by the educated and town dwelling people. The patients living in villages are exempted from all the facilities available to them. They should be identified to make use of all of their needs for their better survival. This study will be an eye opening for the Down syndromic patients living in the remote Pandaravilai village who are neglected by the welfare organizations due to ignorance of the uneducated parents. Extra research in Pandaravilai village is necessary to find out the cause and to prevent additional birth of Downsyndromes.

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