

## Harsukh Educational Charitable Society

### International Journal of Community Health and Medical Research

Journal home page: [www.ijchmr.com](http://www.ijchmr.com)

doi: 10.21276/ijchmr

Official Publication of "Harsukh Educational Charitable Society" [Regd.]

ISSN E: 2457-0117

ISSN P:2581-5040

RNI No. - PUNENG/2017/75049

Index Copernicus value 2016 = 52.13

## Original Article

### Analysis Of Cases Of Chickenpox In Children- A Clinical Study

Girjesh Kumar Singh

Assistant Professor, Department Of Pediatrics, Hind Institute Of Medical Sciences, Safedabad, Barabanki, U.P

#### ABSTRACT:

**Background:** Chickenpox is the primary infection caused by the varicella-zoster virus. It is an acute, highly infectious disease most commonly seen in children under 10 years old. The present study was conducted to assess the cases of chickenpox in children. **Materials & Methods:** The present study was conducted in the department of Pediatrics. It comprised of 46 children of 10- 16 years of both genders. In all children, complete blood count, platelet count, urine examination was done. They were also subjected to chest radiographs, serum urea, creatinine and liver function tests. **Results:** Out of 46 children, 30 were males and 16 were females. The difference was significant (P- 0.01). Mean age in males was 14.2 years and in females was 13.6 years. In 18 males and 9 females, symptomatic treatment was given while in 12 males and 7 females acyclovir was given. Mean resolution time was 7.12 days in males and 7.40 days in females. Bacterial superinfection was seen in 2 males and varicella pneumonia in 1 male and 1 female each. Common symptoms were fever seen in 26 males and 14 females, rashes in 30 males and 16 females, cough in 22 males and 12 females, myalgia in 25 males and 15 females and oral ulcerations in 27 males and 13 females. The difference was non- significant (P> 0.05). **Conclusion:** Chickenpox manifests in adulthood, is a self limiting vesicular disease. We found maximum cases in males as compared to females. Fever, rashes, cough and oral ulcers were common symptoms.

**Key words:** Chickenpox, Rash, Vesicle

**This article may be cited as:** Singh GK. Analysis Of Cases Of Chickenpox In Children- A Clinical Study .HECS Int J Comm Health Med Res 2018;4(2):97-99

**Corresponding Author :** Dr. Girjesh Kumar Singh, Assistant Professor, Department Of Pediatrics, Hind Institute Of Medical Sciences,, Safedabad, Barabanki, U.P

#### INTRODUCTION

Chickenpox is the primary infection caused by the varicella-zoster virus. It is commonly seen in children below 10 years of age, an acute, highly infectious disease. Chickenpox is usually a mild, self-limiting illness and most healthy children recover itself. Adults tend to suffer more severe disease than children. In temperate countries more than 90 percent of population is seropositive by the age of 20 years. In tropical climates, around 50 percent of population is still seronegative by the age of 20 years.<sup>1</sup> It is usually a benign childhood disease and is rarely noted as a public health problem. But it can be severe and even fatal in otherwise healthy children. Chickenpox is highly contagious, infecting up to 90% of non-immune people who are exposed to the disease. The incubation period ranges from 10 to 21 days although is usually from 14-16 days. The most infectious period is 1-2 days before the rash appears, but infectivity continues until all the vesicles have crusted over, at least 5 days after onset of the rash.<sup>2</sup> An intensely itchy, vesicular rash appears mostly over the trunk and to a lesser extent the limbs. The severity of infection

varies and it is possible to be infected but show no symptoms. Infectivity may be prolonged in people with altered immunity.<sup>3</sup> The present study was conducted to assess the cases of chickenpox in children.

#### MATERIALS & METHODS

The present study was conducted in the department of Pediatrics. It comprised of 46 children of 10- 16 years of both genders. Parents of children were informed regarding the study and written consent was obtained. Ethical clearance was taken prior to the study. General information such as name, age, gender etc. was recorded. In all children, complete blood count, platelet count, urine examination was done. They were also subjected to chest radiographs, serum urea, creatinine and liver function tests. Results thus obtained were subjected to statistical analysis using chi-square test. P value less than 0.05 was considered significant.

**RESULTS**

Table I shows that out of 46 children, 30 were males and 16 were females.

**Table I Gender Distribution of patients**

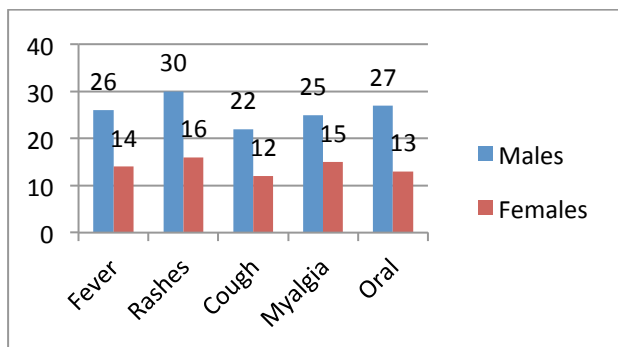
Male	Female
30	16

**Table II Demographic Characteristics in patients**

Parameters	Males	Females	P value	
Mean age	14.2 years	13.6 years	0.1	
Symptomatic Treatment	18	9	0.0	
Acyclovir	12	7	5	
Mean resolution time	7.12 days	7.40 days	0.5	
Complications	Bacterial superinfection	2	0	0.1
	Varicella pneumonia	1	1	

Table II shows that mean age in males was 14.2 years and in females was 13.6 years. In 18 males and 9 females, symptomatic treatment was given while in 12 males and 7 females acyclovir was given. Mean resolution time was 7.12 days in males and 7.40 days in females. Bacterial superinfection was seen in 2 males and varicella pneumonia in 1 male and 1 female each.

**Graph I Clinical symptoms in patients**



Graph I shows that common symptoms were fever seen in 26 males and 14 females, rashes in 30 males and 16 females, cough in 22 males and 12 females, myalgia in 25 males and 15 females and oral ulcerations in 27 males and 13 females. The difference was non-significant (P> 0.05).

**DISCUSSION**

Chicken pox in adults and adolescent patients is generally considered a serious disease. Chickenpox is usually diagnosed by clinical signs and symptoms. It is characterized by vesicular rash which starts as small papules, develop into clear vesicles which become pustules and then dry into crusts. The rash usually appears first on the trunk and successive crops of vesicles appear over several days although hands and feet are relatively spared.<sup>4</sup> In present study, out of 46 children, 30 were males and 16 were females. Amer et al<sup>5</sup> in their study found that 181 patients had mild/moderate infection and were treated symptomatically, while 9.5% had severe eruption and were given acyclovir. Mean age of patients was 23.3±5.41 years. 90.3% were males and 9.5% were females. Mean resolution time was 7.75 days in mild/moderate cases and 7.68 days in severe cases. 4 cases of bacterial superinfection and 1 case of varicella pneumonia were observed. We found that mean age in males was 14.2 years and in females was 13.6 years. In 18 males and 9 females, symptomatic treatment was given while in 12 males and 7 females acyclovir was given. Mean resolution time was 7.12 days in males and 7.40 days in females. Bacterial superinfection was seen in 2 males and varicella pneumonia in 1 male and 1 female each. This is in agreement with Nguyen et al.<sup>6</sup> In present study, common symptoms were fever seen in 26 males and 14 females, rashes in 30 males and 16 females, cough in 22 males and 12 females, myalgia in 25 males and 15 females and oral ulcerations in 27 males and 13 females. This is in agreement with Rentier et al.<sup>7</sup> Rawson et al<sup>8</sup> in their study 0.61% chickenpox cases. The mean age of cases was 13.23 years. The disease was most common in the age-group of 5-15 years (49.4%). Cases were highest during the spring season followed by the wintry months. There was slight male preponderance for the cases (1.24:1). The risk of complications varies with age and is higher in infants under 1 and in persons over 15 years. Adults with chickenpox may develop more severe disease with lung involvement of varying severity, with smokers at higher risk of fulminating varicella pneumonia. The grading of chicken pox as mild, moderate or severe is based on clinical assessment, as there are no established criteria for this purpose.<sup>9</sup> There is no specific treatment for chickenpox. It is a viral infection that will therefore not respond to antibiotics. Treatment should be based on reducing symptoms such as fever and itchiness. People at higher risk of developing serious complications from chickenpox may be given antiviral drugs such as acyclovir which may prevent severe illness developing.<sup>10</sup>

**CONCLUSION**

Chickenpox manifests in adulthood is a self limiting vesicular disease. We found maximum cases in males as compared to females. Fever, rashes, cough and oral ulcers were common symptoms.

**REFERENCES**

1. Lokeshwar MR, Agrawal A, Subbarao SD et al. Age related seroprevalence of antibodies to varicella in India. Indian Pediatr 2000; 37: 714-9.

2. Klassen TP, Belseck EM, Wiebe N, Hartling L. Acyclovir for treating varicella in otherwise healthy children and adolescents. *Cochrane Database Syst Rev* 2002; (4): 29- 32.
3. Fleming DM, Cross KW, Cobb WA, Chapman RS. Gender difference in the incidence of shingles. *Epidemiol Infect* 2004; 132: 1-5.
4. Bhawe SY. Controversies in chicken-pox immunization. *Indian J Pediatr* 2003; 70: 503-7.
5. Bari A, Rehman S. Hematological abnormalities in adult patients of chicken pox. *J Pak Assoc Dermatol* 2004; 14: 193-7.
6. Nguyen H, Jumaan A, Seward J. Decline in mortality due to varicella after implementation of varicella vaccination in the United States. *N Eng J Med* 2005; 335: 450-8.
7. Rentier B, Gershon AA for European Working Group on Varicella. Consensus: varicella vaccination of healthy children – a challenge for Europe. *Pediatr Infect Dis J* 2004; 23: 379-89.
8. Rawson H, Crampin A, Noah N. Deaths from chickenpox in England and Wales 1995-7: analysis of routine mortality data. *BMJ* 2001; 323: 1091-3.
9. Akram DS, Qureshi H, Mahmud A et al. Seroepidemiology of varicella-zoster in Pakistan. *Southeast Asian J Trop Med Public Health* 2000; 31: 646-9.
10. Saha SK, Darmstadt GL, Hanif M, Khan R. Seroepidemiology of varicella-zoster virus in Bangladesh. *Ann Trop Paediatr* 2002; 22: 341-5.

**Source of support:** Nil

**Conflict of interest:** None declared

This work is licensed under CC BY: *Creative Commons Attribution 3.0 License*.