J. Cardiovasc Disease Res., 2020; 11(4): 146 – 149
A Multifaceted Peer Reviewed Journal in the field of Cardiology
www.jcdronline.org | www.journalonweb.com/jcdr
P – ISSN: 0975 – 3583 Online: 0976 – 2833

Assessment the Prevalence of Mumps for the Periods of Three Years in Babylon Province Southern: A Retrospective Study

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ABSTRACT

Viral contaminative contagious disease, may cause swelling and aches in the salivary glands. The study aims at: identify the prevalence of mumps during the last three years ago and determined the prevalence if associated with the age and gender. By non probability a convenience sample were collected retrospectively from medical records as a statistic for each year for (2017 to 2019). The data were collected and analyzed through the application of the descriptive and inferential data analysis approach. The study results indicate that (47.7%) the prevalence rate regarding the time of the prevalence were records in 2017. Concerning age, most of them (23.6%) aged 15-19 years old they recorded the highest prevalence of the infection. A male gender were records more than female with infection (60.2 % and 39.8%) respectively. The age and gender of infected people were influenced by the time of infection at *at p-value <0,001*. It is conclude that prevalence of mumps among the adolescents age male were higher than the female. The age and gender of people were affected by the time of the prevalence. Health directorate need to be emphasized on vaccinations are an important issues, and further studies need to be undertaken the causes and risk factors related to mumps.

Keywords: Assessment, Mumps, Reprospective.

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Submitted: 18-09-2020
Revision: 20-10-2020
Accepted Date: 15-11-2020

DOI: 10.31838/jcdr.2020.11.04.25

INTRODUCTION

Inflammation of the salivary glands, which leads to painful swelling in one or both parotid glands. Complex cycles may lead to meningitis, encephalitis, inflammation of the pancreas and hearing defects. The patients may also suffer inflammation of the ovaries, whereas male patients may develop testicular inflammation [1].It is an acute infectious disease characterized by swelling of the endocrine glands. Increased incidence of mumps reported in many countries since the beginning of the century. In the United States, it has been reported more cases of mumps in 2006 than any year since 1955[2].There has also been an increase in France, where they were reported more cases in 2013 compared to the previous both contracts [3].A variety of explanations have been suggested for the resurgence of mumps, including the coverage of the vaccine is sufficient, and the mismatch between the genetic pattern of wild type. The vaccine virus strains, and the circulation of other pathogens that can cause inflammation of the parotid gland, strain vaccine is effective and the use of[4].In Korea, it noted a recent increase in mumps among adolescents aged 10-19 years. Use the vaccine Rubini from 1997 to 2000 in Korea. Thus it is assumed that the increase in the incidence of mumps in Korea can be attributed to the accumulation of adolescents exposed to vaccination strain Rubini[5].The virus is spread through respiratory droplets. These can become airborne air when an infected person coughs and sneezes and talks. In addition, the person infected the virus by touching surfaces contaminated with infected Balkotairat. Individuals with is the most common type of infection during the period begins several days before the appearance of the parotid gland inflammation, and continue until the fifth day after his appearance for the first time. To prevent the patient from spreading the virus to others, it is recommended for removal for five days after the start of mumps [6] Symptoms of mumps are more severe in adults than in children[7]. Almost a third of people have symptoms ranging from mild to no symptoms, so early detection of the disease through medical studies and isolation of patients due thier transmission. The study aims at: identify the prevalence of mumps during the last three years ago and determined the prevalence if associated with the age and gender.

MATERIALS AND METHODS

A retrospective study design is conducted in order to know the prevalence of mumps during the last three years ago and determined the prevalence if associated with the age and gender of the infected people.

Non probability a convenience sample were collected retrospectively from medical records as a statistic for each year for (2017 to 2019).

The data were collected and The extraction of the spread of viral mumps each year by dividing the number of individual patients who tested positive for the total number covered by the study rate, analyzed through application of the descriptive statistical analysis approach that has "frequencies &percentages"; and Inferential statistical data analysis approach: used by application of the Chi-square and Regression test.

They χ^2*obs.* $<\chi^2$ *crit. = insignificantly.*
They χ^2*obs.* $>\chi^2$ *crit. = significantly,*
According to p-value
HS : Highly significantly at probability-value <0.01.

As compared with the D.f.

RESULTS

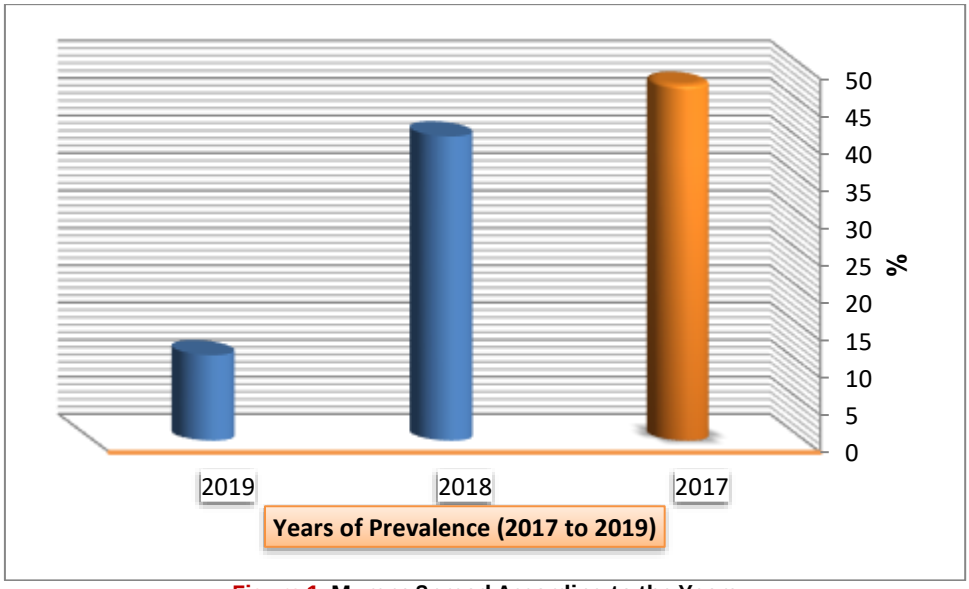

Figure 1: Mumps Spread According to the Years

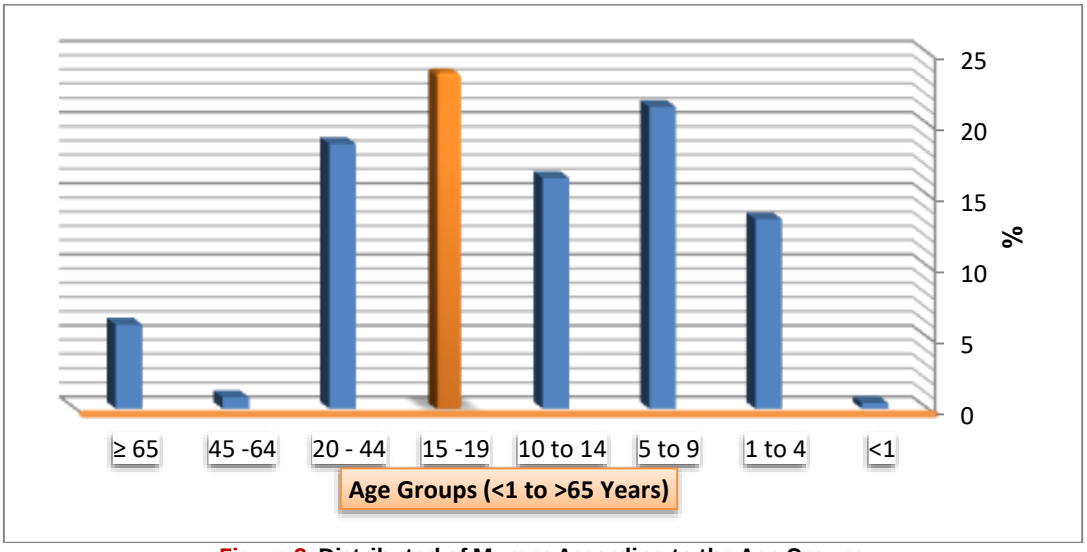

Figure 2: Distributed of Mumps According to the Age Groups

Table 1: Statistical Relationship between the Years of Prevalence and Age of Patients

Age groups (years)	Years of Prevalence			Total (%)	d. f	Sig
	2017	2018	2019			
< 1	0	1	1	2 (0.4)	14	χ^2obs.= 98.308 χ^2 crit.= 23.685 *P-value= 0.000* HS
1 — 4	19	35	13	67 (13.3)		
5 — 9	46	40	21	107 (21.2)		
10 — 14	51	19	12	82 (16.2)		
15 — 19	75	37	7	119 (23.6)		
20— 44	50	40	4	94 (18.6)		
45— 64	0	4	0	4 (0.8)		
≥ 65	0	30	0	30 (5,9)		
Total	241 (47.7)	206(40.8)	58 (11.5)	505 (100)		

"χ^2obs.= Chi-square observer, χ^2crit.= Chi-square critical, Df= Degree of freedom, HS= High significant"

Investigated the relationship between the years of prevalence and age of the infected people, it depicts there were a highly associated with age at *p-value <0,001 and* χ^2*obs. >*χ^2 *crit.*

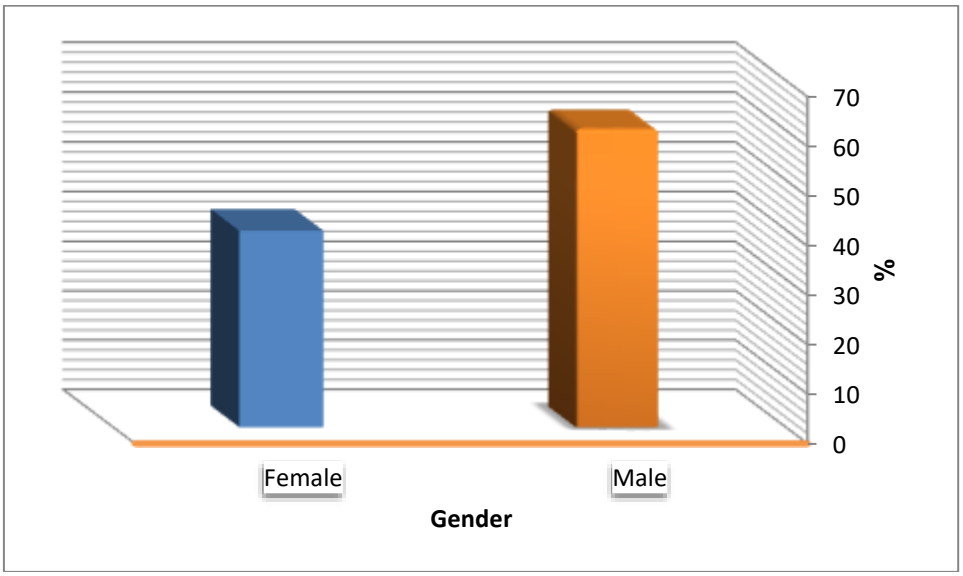

Figure 3: Distributed of Mumps According to the Gender

Table 2: Statistical Relationship between the Years of prevalence and Gender of Patients

Gender	Years of prevalence			Total (%)	d. f	Sig
	2017	2018	2019			
Males	174	119	11	304 (60.2)	2	χ^2obs.= 56.150 χ^2 crit.= 5.991 *P-value= 0.000* HS
Females	67	87	47	201 (39.8)		
Total	241 (47.7)	206 (40.8)	58 (11.5)	505 (100)		

"χ^2obs.= Chi-square observer, χ^2crit.= Chi-square critical, Df= Degree of freedom, HS= High significant"

This analysis presented the relationship between the years of prevalence and gender of the infected people, it depicts there were a highly associated with gender *at p-value <0,001 and* χ^2*obs. >*χ^2 *crit.*

Table 3: Regression Impact the Yaers of the Prevalence on Age and Gender

	Sum of Squares	D.f	Mean Square	F	p- value
Impact the Years of Prevalence	58.019	2	29.010	83.376	0.000 HS

This table confimrd that age and gender were high affected by the years of prevalence at *p-value <0,001*.

DISCUSSION

Our findings show that the prevalence of mumps were reached to (47.7) in 2017 records the highest percent among years. In regarding the age groups, the highest percent were recorded at the age of adolescence (15-19) years old, it constituted (23.6%) out total number. Concerning gender, it is obviously that the male gender were more susceptible for the infection. It is around the world, the mumps spread without vaccination approximately 0.1% to 1% of the population gets mumps every year. The widespread prevalence of the vaccine resulted in a reduction of more than 90% of infection rates. Mumps are more prevalent in developing countries because vaccination is less common. However, outbreaks may occur in communities where vaccination is widespread. Mumps was a common childhood disease worldwide before vaccines became available. Large outbreaks occurred globally every two to five years. Children between the ages of five and nine were most affected. In the immunized population, people in the early 20s are more likely to get infected [8].

Also, the above findings come along with study has been conducted in Korea, an age–period–cohort analysis deals with incidence rates of mumps among children and adolescents. Their results reveals from 2001 to 2015, the incidence began to increase from less than 10 cases to more than 100 cases per 100,000. The rate of infection is higher among males aged 15-17 years during 2013-2015, reaching 508.7 per 100,000 people. There has been an increase in the incidence of late teen years in the cohort 1998-2000. It was

observed a shift in life towards the former teen years through groups of 2001-2003 and 2004-2006 [9].

The age, and gender of infected people were highly influenced by the years of prevalence. Many studies have confirmed that the prevalence of mumps may be affected by the climate. In the region around the equator, the disease often occurs throughout the year, while it is most prevalent in winter and spring in the northern and southern regions [10].

Our findings come in the same line with the study has been assessed the serological evidence of infection mumps virus in children immunized. It is confirmed that it increases the severity of the disease with age. About a third of mumps infections do not show symptoms, often young children do not show any symptoms. Males are at risk of significantly higher than the suffering of complications higher than females [1][11].

Furthermore, the age and gender of infected people were influenced by the time of the prevalence during the period 2013–2015 were significantly with years of infection [9].

CONCLUSION

The prevalence of mumps among the adolescents age male were higher than the female. The age and gender of people were affected by the time of the prevalence. Health directorate need to be emphasized on vaccinations are an important issues, and further studies need to be undertaken the causes and risk factors related to mumps.

ACKNOWLEDGEMENTS

We are extremely thankful to the College of Nursing, Babylon University for provided that all the needed facilities, which are necessary for successful completion of the present work.

CONFLICT OF INTERESTS

The authors declare that no competing interest exists.

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Cite this article: Suha J Witwit. Assessment the Prevalence of Mumps for the Periods of Three Years in Babylon Province Southern: A Retrospective Study. J. Cardiovascular Disease Res., 2020; 11 (4): 146 – 149