

Evaluation of Gelasin in South Indian Population

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Abstract:

Aim:The main aim of this study is find the presence of gelasin ,whether it's unilateral or bilateral and also comparing predilection among male and female

Method: For the study 200 volunteers belonging to south india and were selected under the inclusive factors. And they were categorized, according to the presence of number of dimple and the side of the dimple present.Values were recorded and evaluated using spss software

Result: From this study, the ratio of occurrence of dimple in male and female is 8:5.On the whole, out of 200, 39 are unilateral, 13 are bilateral. In unilateral out of 39, 15 is present only on left, 24 is present only on right.

Conclusion:This study concludes that dimple occur in both sexes with no particular preponderance, may express unilaterally or bilaterally and are genetically inherited as a dominant trait

INTRODUCTION:

Dimples are small folds or indentations in the fleshy part of the cheek. Dimples are caused by a minor muscle deformity which cause the skin of the cheek to draw tightly as it moves, creating external divots. This adorable facial feature is usually a genetically-inherited trait. However, people born without natural dimples can successfully mimic their appearance through a variety of methods ranging from the simple (makeup) to the drastic (surgery)^[1].must be interesting to note that dimples are inherited facial traits that are passed from one generation to the next. Dimples often occur on both the cheeks. A single dimple on one cheek is a rare phenomenon.

Dimples could be transient or permanent, depending on the cause or factor responsible for their occurrence. The process of growth and development could contribute to this. Excessive fat deposition, which disappears with the aging process, causes transient dimples, so also is the stretching or lengthening of muscles during growth, leading to gradual obliteration of the defect. This explains while some dimples are commoner and more conspicuous in the younger age groups (2)

Transfer of dimples from parents to children occurs due to just one gene. The dimple creating genes are present in the sex cells prior to the process of reproduction. Each parent provides one of these genes to the child. So, if both the parents have dimples, the children have 50-100% chances of inheriting dimple genes.If, however, only one parent has dimple genes, the chances of the children inheriting the genes are 50%. If neither of the parents has the dimple genes, their children will not have dimples.As said earlier, dimples can be passed through multiple generations. The frequency with which a heritable trait is carried forth through genes is called penetrance. Sometimes a variation

in penetrance may also occur. Some individuals may carry a particular gene, but they do not manifest the traits associated with it. Nonetheless, they pass the traits to their successive generations.[3]

Apart from that, sometimes the dimples may also be caused from spontaneous mutations that result in a dent in the cheek or a cleft chin that leads to dimples.

Apart from variable penetrance, there may also be reduced penetrance which allows a generation to skip having dimples, although they may appear in subsequent generations.Reduced penetrance occurs when one person inherits certain genetic trait along with another trait that suppresses it. For example, a person may inherit genes for dimples and also other genes for small face. In this case the small face will not allow the gene for dimples to function. Such people are called passive carriers of dimple genes.[4]

MATERIALS AND METHODS

The study was conducted among south indian population about 200 people, the participants were aged between 25-45 years. Participation of the respondents was voluntary. The study was conducted for 1 month. The inclusive factors are the patients should not be undergone any surgery for creation of dimple. The patients not falling under inclusive factors were excluded. The volunteers were divided in male and female. And they were categorized into unilateral or Bilateral, according to the presence of number of dimple and the side of the dimple present. The values were taken and the values were entered and evaluated using SPSS software and the results were analyzed.

RESULT:

Details about the results are given in table 1&2 and the analysis of the data is graphically represented below

TABLE 1: Occurrences Of Dimple In Both Sexes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	left	15	7.5	28.8	28.8
	right	24	12.0	46.2	75.0
	bilateral	13	6.5	25.0	100.0
Total		52	26.0	100.0	
Missing	System	148	74.0		
Total		200	100.0		

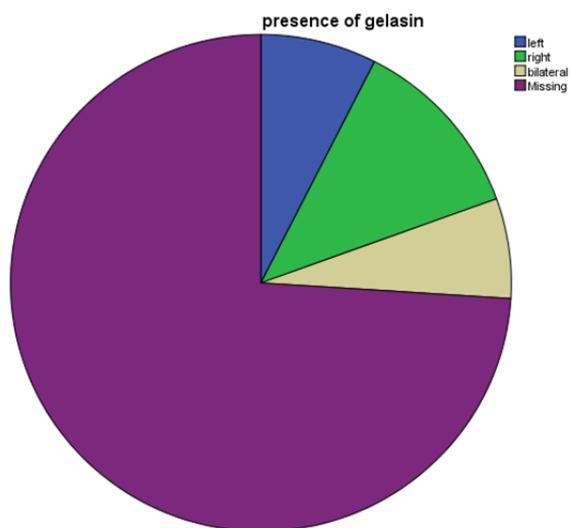


Figure 1

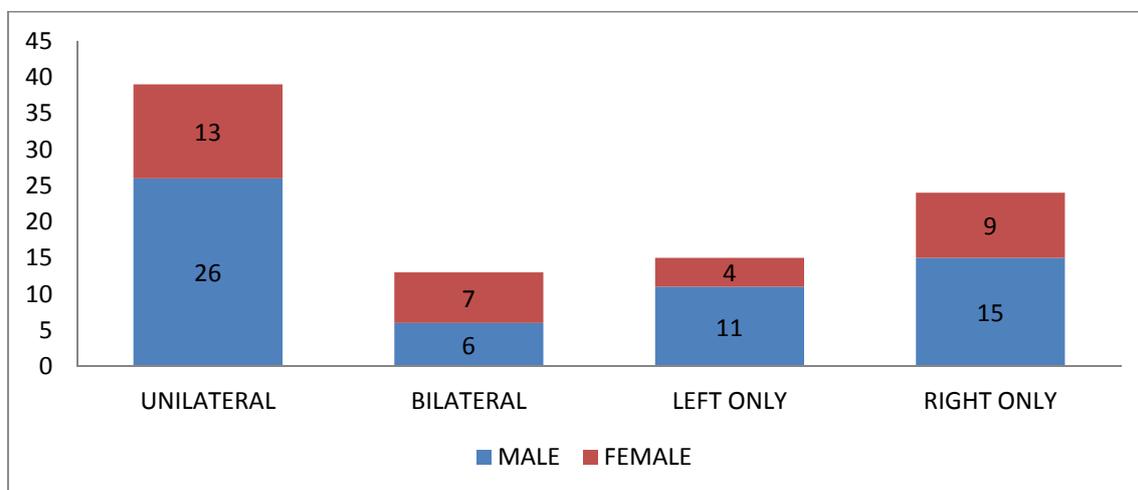


Figure 2: Bar Chart Showing The Presence Of Dimples In Both Sexes

TABLE 2: Percentage Analysis In Males

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Left	11	11.0	34.4	34.4
	Right	15	15.0	46.9	81.3
	Bilateral	6	6.0	18.8	100.0
Total		32	32.0	100.0	
Missing	System	68	68.0		
Total		100	100.0		

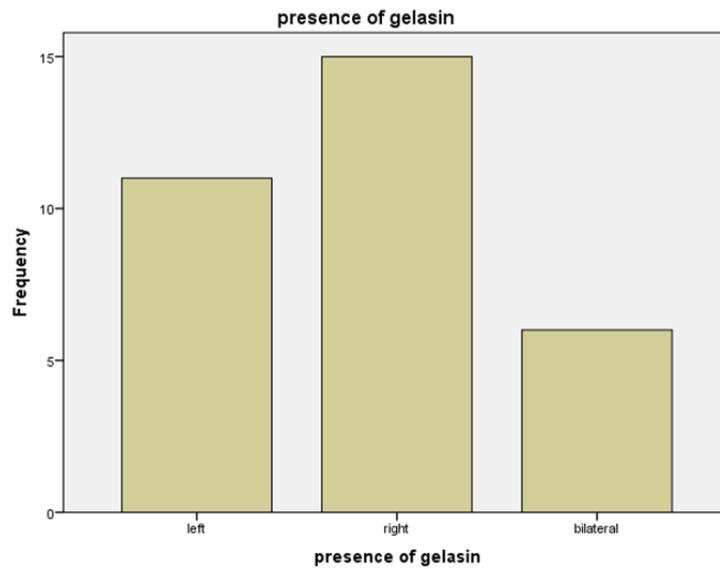


Figure 3 : Bar Chart Showing Presence Of Dimple (Left,Right,Bilateral)In Males

TABLE 3: Percentage Analysis In Females

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Left	4	4.0	20.0	20.0
	Right	9	9.0	45.0	65.0
	Bilateral	7	7.0	35.0	100.0
	Total	20	20.0	100.0	
Missing	System	80	80.0		
Total		100	100.0		

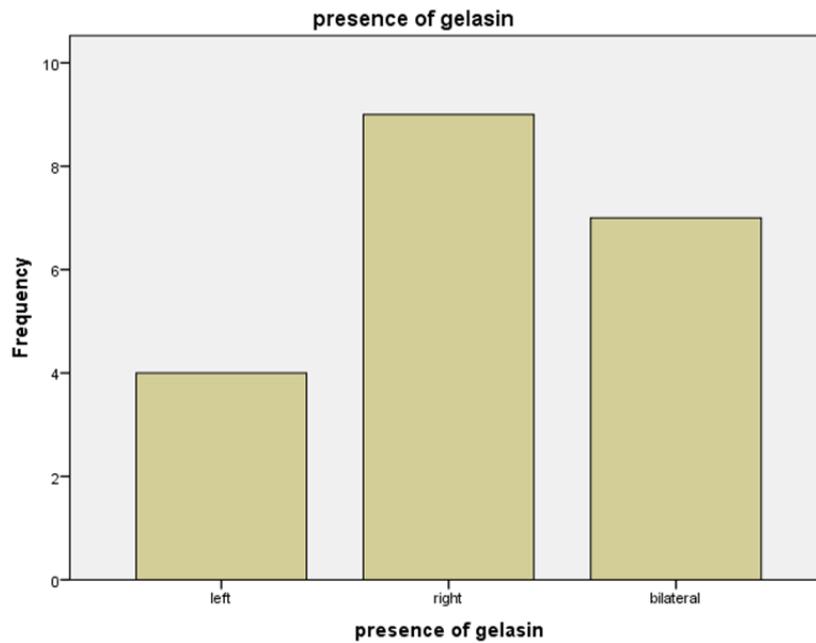


Figure4:Bar Chart Showing Presence Of Dimple (Left,Right,Bilateral)In Females

DISCUSSION:

Dimples on cheeks enhance facial beauty and expression. They occur in both sexes with no particular preponderance, may express unilaterally or bilaterally and are genetically inherited as a dominant trait.^[5,6] Anatomically, dimples are thought to be caused by a double or bifid zygomaticus major muscle, whose fascial strands insert into the dermis and cause a dermal tethering effect^[7,8].

From this study, the ratio of occurrence of dimple in male and female is 8:5. In this study with the males, we found that out of 100 males, 26 males are unilateral and 6 males are bilateral whereas in females out of 100 females, 13 of them are unilateral and 7 of them are bilateral. On the whole, out of 200, 39 are unilateral, 13 are bilateral. In unilateral out of 39, 15 is present only on left, 24 is present only on right.

On analysis of table 1 and figure 1, it shows 26% of population likely to have dimple, out of it 28.8% is left, 46.2% is right, 25% is bilateral. In whole population or study, it shows that 7.5% is left, 12% is right, 6.5% is bilateral. In table 2 and figure 3 it shows the percentage analysis of dimple in males, it shows 32% of males have dimple, in which 34.4% is left, 46.9% is right, and 18.8% is bilateral, in whole population, 11% is left, 15% is right, 6% is bilateral. In table 3 and figure 4 it shows the percentage analysis of dimple in females, it shows 20% of females have dimple, in which 20% is left, 45% is right, and 35% is bilateral, in whole population, 4% is left, 9% is right, 7% is bilateral.

CONCLUSION:

Cheek dimples are usually considered as an attractive feature of facial beauty. Unfortunately, not all beautiful girls have dimples. Cheek dimples when present, show up when a person makes a facial expression. Anatomically, dimples are thought to be caused by a double or bifid zygomaticus major muscle, whose fascial strands insert into the dermis and cause a dermal tethering effect.

They occur in both sexes with no particular preponderance, may express unilaterally or bilaterally and are genetically inherited as a dominant trait. And further studies must be done in this field, intense researches are needed in gene causing of dimple and facial expression

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