

## EFFECT OF HERBAL UNANI FORMULATION ON CHRONIC SINUSITIS

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### ABSTRACT

Sinusitis is the inflammatory condition involving paranasal sinuses. The paranasal sinuses are air filled spaces in certain bone of skull and they are in direct communication with nasal cavity through their opening called ostia. The clinical manifestation of sinusitis is nasal discharge, headache, blocking of nose, changed nasal resonance, post nasal drip and pain with tenderness in affected sinus. It may be associated with fever occasionally. If the symptoms of sinus inflammation lasting >3 months, then the condition is called chronic sinusitis.<sup>[1,2,3,4,5]</sup> Although there are so many unani single drugs and compound formulation are being claimed and used to treat and manage chronic sinusitis but here we are testing a well known and literary claimed formulation containing ingredients *Ustukhuddoos*, *Filfil Siyah* and *Aslussoos* for managing the various clinical sign & symptoms of chronic sinusitis.

**KEYWORDS:** *Sinusitis; Unani medicine; Lavandula stoechas; Piper nigrum; Glycyrrhiza glabra.*

### INTRODUCTION

According to Ibn Sina, hot temperament people are much more prone to develop *Nazla* due to variation in environmental conditions and other extrinsic factors in comparison to the cold temperament people, who are more likely to develop *Nazla* due to intrinsic changes inside the body.<sup>[6,7]</sup>

Aristotle was the first ancient Unani physician who had described the "Pituitary Gland" as *Infundibulum*, which literally means funnel shaped organ. He stated that this funnel shaped organ drains one of the four cardinal humours i.e. the phlegmatic humour, which comes from the higher brain. Some part of this phlegmatic humour also drains in to nose.<sup>[8]</sup>

Most of the Unani physicians say that the phlegm dripping into the throat is known as *Nazla* and to the nose is known as *Zukam*.<sup>[6,9,10,11,12]</sup> Differentiating the *nazla* and *zukam*, the father of medicine *Buqrat* (460-377B.C.) stated that, *zukam* is the *Nazla* (*coryza*) of nasal mucosal lining in which the nasal mucosa actually gets involved and always associated with excessive discharge. Several Unani physicians have described *Nazla* in lieu of the signs and symptoms of sinusitis, with its types *haad* and *muzmin*.<sup>[11,13,14]</sup>

The four pairs of sinuses (maxillary, frontal, ethmoidal, and sphenoidal) are partially enclosed cavities open to the nasal passages through small holes (*ostea* or *meatus*). The warm, moist sinus environment they create is speculated to aid olfaction, increase vocal resonance, reduce the bony weight of the skull, and protect intracranial structures from trauma.<sup>[15]</sup>

Unani medicine has proven its importance regarding its efficacy, cost and minimal side effects. The general treatment of chronic sinusitis consists of moderating with altered humours, excretion of excessive and altered *balgham* and subsiding the local inflammation. For this purpose, the medicines used in Unani system have properties like, demulcent, de-obstruent, expectorant and *Muhallil-e-auram*. (Anti-inflammatory). Thus, selection of compound Unani formulation *Ustukhuddoos*, *Filfil Siyah*, *Aslussoos* is supported by unani literatures, which claim that it has good effect in the management of chronic sinusitis.

### MATERIAL AND METHODS

The present study was designed as an open label randomized clinical trial in successive patients with chronic sinusitis diagnosed on presentation, history and investigations. Sixty diagnosed patients of age between

15-60 years. Who belongs to inclusion criteria were registered, and compound Unani formulation (*Ustukhuddoos, Filfil Siyah, Aslussoos*) is given for 45 days. Complete physical examination & investigations of patients were done and follow-up planned prior of trial, 15<sup>th</sup>, 30<sup>th</sup> day and at the end of trial. Subjective objective and safety parameter recorded. Complication and side effects treated accordingly and data collected. An official approval of study proposal was taken by the College and Hospital ethical committee; later on, by MUHS, Nashik (M.S.) before starting the trial. The statistical analysis of data has been done with the help of computer software "Statistical Package for Social Sciences". Test of significant calculated by using paired "t" test.

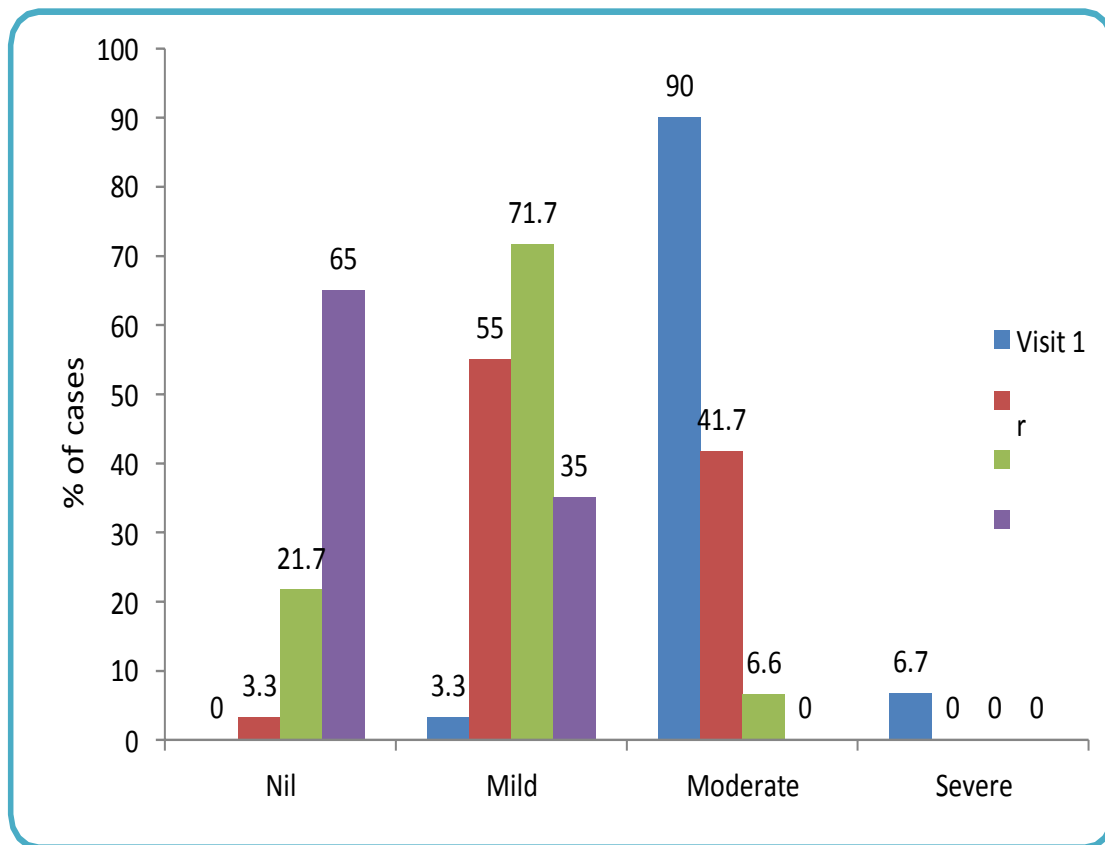
**RESULTS AND ANALYSIS**

In the present study, 60 patients of either sex of different age groups suffering from chronic sinusitis were treated, with a sincere and pious aim of providing the clinical

efficacy of Compound Unani Formulation (*Ustukhuddoos, Filfil Siyah, Aslussoos*).

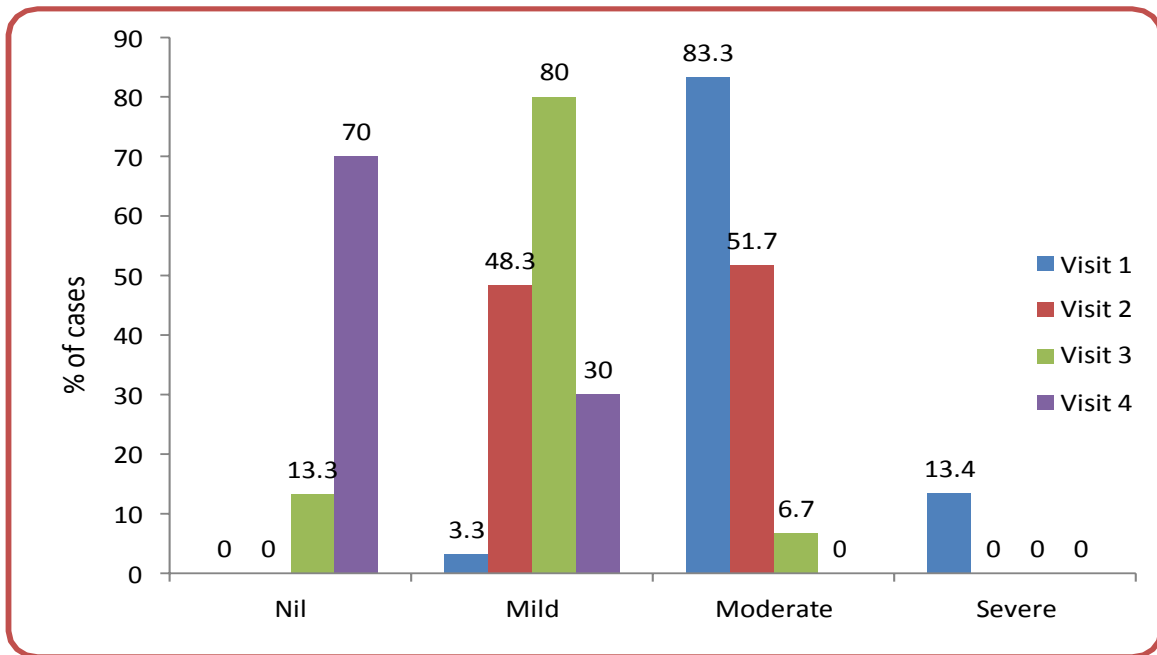
**Effect on Subjective Parameter**

**Effect on Headache:** 0 day, the percentages are, severe 6.7%, Moderate 90%, mild 3.3% and asymptomatic 0%. On 15<sup>th</sup> day, the percentages are, sever 0%, Moderate 41.7%, mild 55%, and asymptomatic 3.3%. On 30<sup>th</sup> day, the percentages are, sever 0%, Moderate 6.6%, mild 71.7% and asymptomatic 21.7 and on 45<sup>th</sup> day, the percentages are, sever 0%, Moderate 0%, mild 35%, and asymptomatic 65%. Calculating Chi-square Value of Visit 1 v/s Visit 4 is 112.7 with df 3 than the p-Value is 0.001 which is significant. According to grades of headache, significant changes are found from zero day to 40<sup>th</sup> day. 39 patients out of 60 have got complete relief. While 21 patients have remained with little symptoms. Chi-square value is 112.7 with df 3 and P< 0.05 is considered to be statically significant. Hence the drug is effective in nasal discharge.



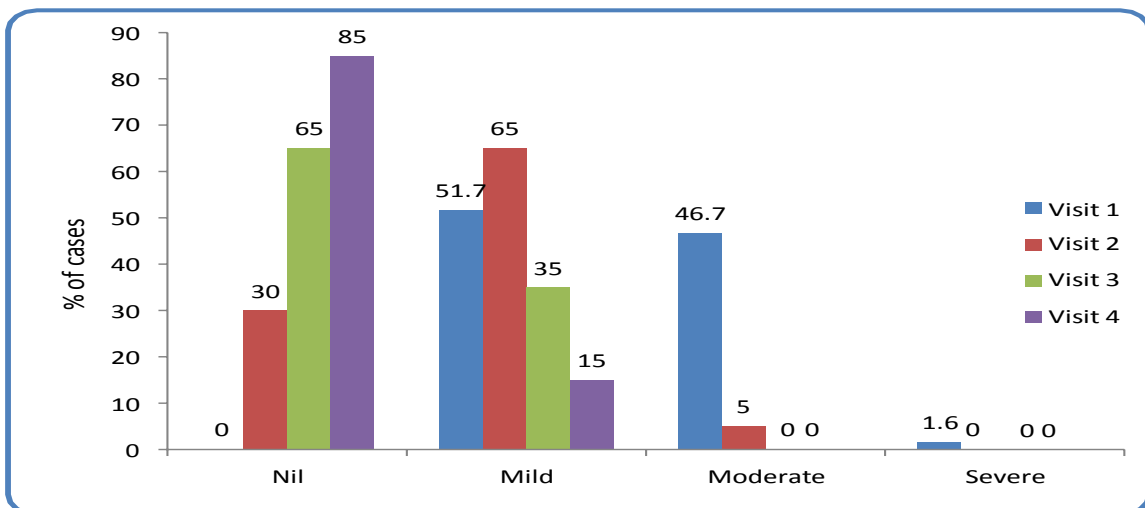
**Effect on Nasal Discharge:** 0 day, the percentages are, severe 13.4%, Moderate 83.3%, mild 3.3% and asymptomatic 0%. On 15<sup>th</sup> day, the percentages are, sever 0%, Moderate 51.7%, mild 48.3%, and asymptomatic 0%. On 30<sup>th</sup> day, the percentages are, sever 0%, Moderate 6.7%, mild 80% and asymptomatic 13.3 and on 45<sup>th</sup> day, the percentages are, sever 0%, Moderate 0%, mild 30%, and asymptomatic 70%. Calculating Chi-square Value of Visit 1 v/s Visit 4 is

112.8 with df 3 than the p-Value is 0.001 which is significant. According to grades of nasal discharge, significant changes are found from zero day to 45<sup>th</sup> day. 42 patients out of 60 has got complete relief. While 18 patients have remained with little symptoms. Chi square value is 112.8 with df 3 and P< 0.05 is considered to be statically significant. Hence the drug is effective in nasal discharge.



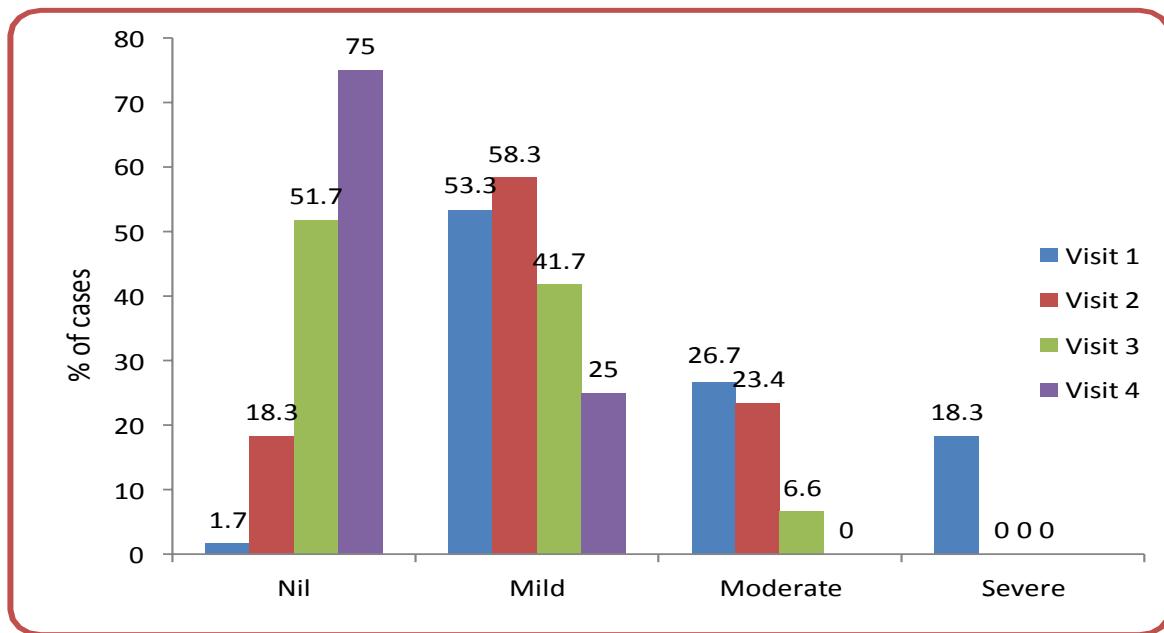
**Effect on Nasal Obstruction:** 0 day, the percentages are, severe 1.6%, Moderate 46.7%, mild 51.7% and asymptomatic 0%. On 15<sup>th</sup> day, the percentages are, sever 0%, Moderate 5%, mild 65%, and asymptomatic 30%. On 30<sup>th</sup> day, the percentages are, sever 0%, Moderate 0%, mild 35% and asymptomatic 65% and on 45<sup>th</sup> day, the percentages are, sever 0%, Moderate 0%, mild 15%, and asymptomatic 85%. Calculating Chi-square Value of Visit 1 v/s Visit 4, 92.1 with df 3 than

the p-Value is 0.001 which is significant. According to grades of nasal obstruction, significant changes are found from zero day to 45<sup>th</sup> day. 51 patients out of 60 have got complete relief. While 9 patients have remained with little symptoms. Chi-square value is 92.1 with df 3 and P< 0.05 is considered to be statically significant. Hence the drug is effective in nasal obstruction. It shows that this *Safoof* is having *mohallil-e-auram* (anti-inflammatory) property.



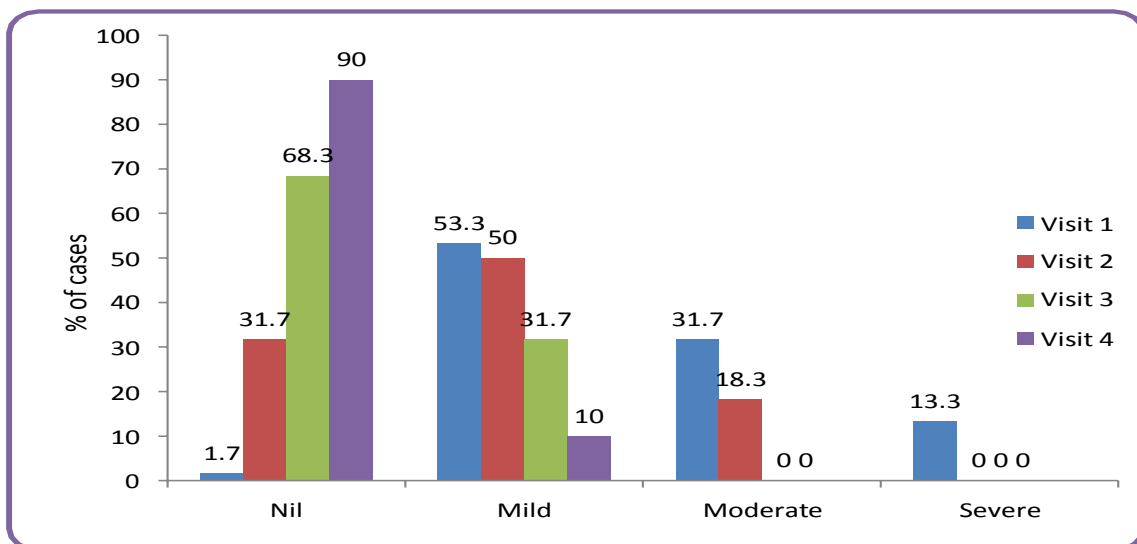
**Effect on Sneezing:** 0 day, the percentages are, severe 18.3%, Moderate 26.7%, mild 53.3% and asymptomatic 1.7%. On 15<sup>th</sup> day, the percentages are, sever 0%, Moderate 23.4%, mild 58.3%, and asymptomatic 18.3%. On 30<sup>th</sup> day, the percentages are, sever 0%, Moderate 6.6%, mild 41.7% and asymptomatic 51.7 and on 45<sup>th</sup> day, the percentages are, sever 0%, Moderate 0%, mild 25%, and asymptomatic 75%. Calculating Chi-square

Value of Visit 1 v/s Visit 4 is 75.2 with df 3 than the p Value is 0.001 which is significant. According to grades of sneezing, significant change is found from zero day to 40<sup>th</sup> day. 45 patients out of 60 have got complete relief. While 15 patients have remained with little symptoms. Chi square value is 75.2 with df 3 and P< 0.05 is considered to be statically significant. Hence the drug is effective in nasal discharge.



**Effect on Malaise:** 0 day, the percentages are, severe 13.3%, Moderate 31.7%, mild 53.3% and asymptomatic 1.7%. On 15<sup>th</sup> day, the percentages are, sever 0%, Moderate 18.3%, mild 50%, and asymptomatic 31.7%. On 30<sup>th</sup> day, the percentages are, sever 0%, Moderate 0%, mild 31.7% and asymptomatic 68.3 and on 45<sup>th</sup> day, the percentages are, sever 0%, Moderate 0%, mild 10%, and asymptomatic 90%. Calculating Chi-square Value of

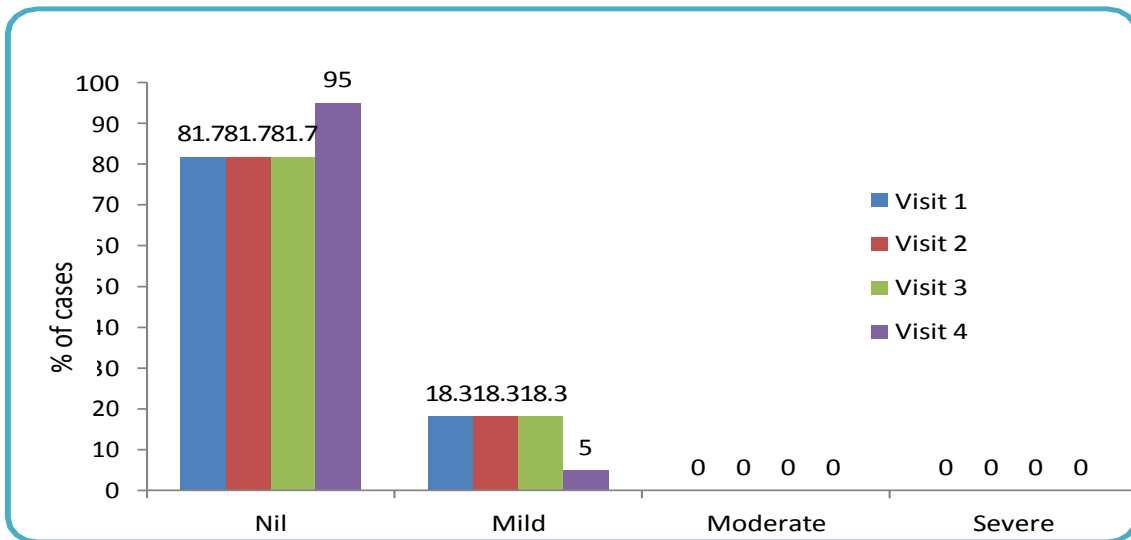
Visit 1 v/s Visit 4 is 95.9 with df 3 than the p-Value is 0.001 which is significant. According to grades of Malaise, significant changes are found from zero day to 40<sup>th</sup> day. 54 patients out of 60 have got complete relief. While 6 patients have remained with little symptoms. Chi-square value is 95.9 with df 3 and P< 0.05 is considered to be statically significant. Hence the drug is effective in nasal discharge.



**Effect on Hypertrophied Nasal Mucosa:** 0 day, the percentages are, severe 0%, Moderate 0%, mild 18.3% and asymptomatic 81.7%. On 15<sup>th</sup> day, the percentages are, sever 0%, Moderate 0%, mild 18.3%, and asymptomatic 81.7%. On 30<sup>th</sup> day, the percentages are, sever 0%, Moderate 0%, mild 18.3% and asymptomatic 81.7 and on 45<sup>th</sup> day, the percentages are, sever 0%, Moderate 0%, mild 5%, and asymptomatic 95%.

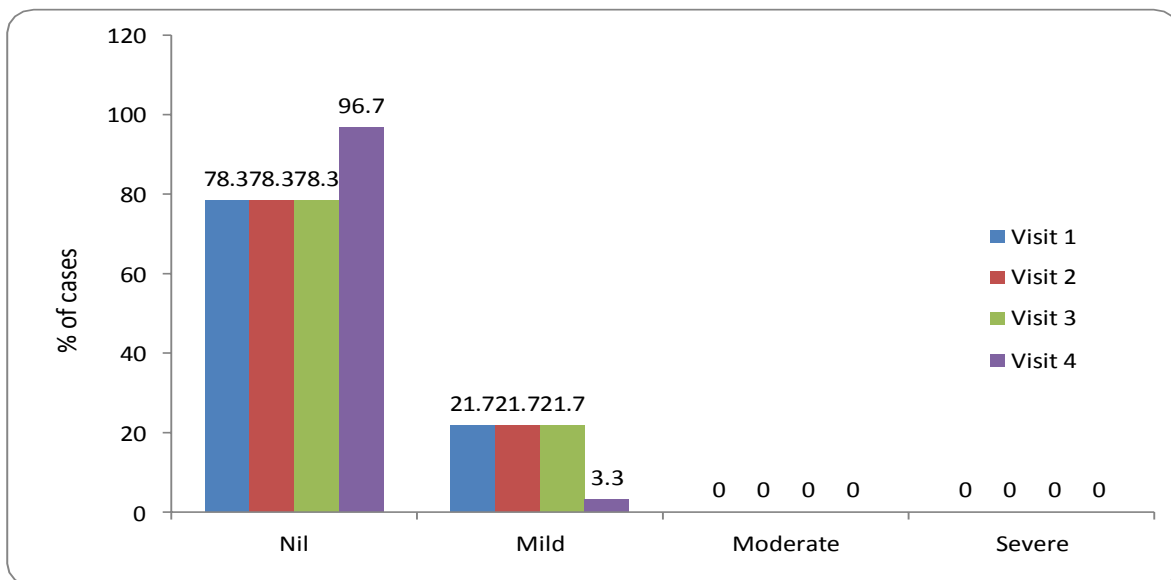
Calculating Chi-square Value of Visit 1 v/s Visit 4 is 5.2 with df 1 than the p-Value is 0.043 which is significant. According to grades of HNM, significant change is found from zero day to 40<sup>th</sup> day. Out of 60 patients only 11 patients have a complain of HNM in mild stage, after completion of 45 days 7 patients out of 11 has got complete relief. While 3 patients have remained with little symptoms. Chi-square value is 5.2 with df 1 and P<

0.05 is considered to be statically significant. Hence the drug is effective in nasal discharge.



**Effect on Deviated Nasal Septum:** 0 day, the percentages are severe 0%, Moderate 0%, mild 21.7% and asymptomatic 78.3%. On 15<sup>th</sup> day, the percentages are, sever 0%, Moderate 0%, mild 21.7%, and asymptomatic 78.3%. On 30<sup>th</sup> day, the percentages are, sever 0%, Moderate 0%, mild 21.7% and asymptomatic 78.3 and on 45<sup>th</sup> day, the percentages are, sever 0%, Moderate 0%, mild 3.3%, and asymptomatic 96.7%. Calculating Chi-square Value of Visit 1 v/s Visit 4 is 9.2

with df 1 than the p-Value is 0.004 which is significant. According to grades of DNS, significant changes are found from zero day to 40<sup>th</sup> day. Out of 60 patients only 13 patients have a complain of DNS in mild stage, after completion of 45 days 11 patients out of 13 has got complete relief. While 2 patients have remained with little symptoms. Chi-square value is 9.2 with df 1 and P< 0.05 is considered to be statically significant. Hence the drug is effective in nasal discharge.



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**Conflict of Interest**

Nil.

**REFERENCES**

1. Braundwald & -Fauci *et al.* Harrison's Principal of Internal Medicine; Kasperhouse Longo, 16<sup>th</sup> edi., 118.
2. Bhargava KB. ENT Diseases; Usha Publication, 192.
3. Guyton. Text Book of Physiology; Guyton, Harcourt Asia Pvt. Ltd, 10<sup>th</sup> edi., 618-619.
4. Shah SN. API Medicine; Association of Physician of India, 8<sup>th</sup> edi., 1: 354.
5. Dorland's Dictionary, Harcourt Asia Pvt Ltd. 28<sup>th</sup> edi., 1532.
6. Ibn Sina. Al-Qanun Fit-tib, Vol. I, Book 3; Jamia Hamdard, New Delhi, 243-244.
7. Jeelani G. Makhzanul Hikmat Kamil, Vol II, Ijaz publishing house, New Delhi, 1996; 338.
8. Davies A, Blakeley AGH, Kidd C. Human Physiology; Churchill Livingstone, New York, 2001; 391-393.
9. Khan A. Haziq; Beesweemsadi book depot, New Delhi; YNM, 73-75.
10. Arzani MA. Meezan-e-Tibb, Idara Kitabushshifa, New Delhi; YNM, 59.
11. Kabeeruddin M. Ifada-e-Kabeer, Sharah Muajjizul Qanun; Idara kitabushshifa, New Delhi, 1947; 231-232.
12. Jurjani MI. Tarjuma Zakheera Khwarzam Shahi, Vol VI, Munshi Neelkishore, Lucknow, 1874: 201, 202.
13. Jeelani G. Maghzanul Ilaj, vol I; Idara Kitabushshifa, New Delhi; YNM, 169-171.
14. Qureshi MH. Jamiul Hikmat, Vol II, Kareemi Press, Lahore, 1935; 964,965.
15. Hallett R, Naguwa SM. Severe rhinosinusitis. Clin Rev Allergy Immunol, 2003; 25: 177-190.