

## Original Research Article

DOI: <http://dx.doi.org/10.18203/issn.2454-5929.ijohns20184360>

# Globus pharyngeus in women: observations and opinions

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**Received:** 13 August 2018

**Revised:** 04 October 2018

**Accepted:** 05 October 2018

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### ABSTRACT

**Background:** India has world's fastest growing economy with second largest population in the world. But the health aspects of Indians are neglected even with vast health facilities and resources. Health is an important factor that contributes to well-being and economic growth especially women's health which must be prioritised but is often ignored. Aims and objectives of the study were to identify the root cause for globus sensation in throat, to assess the percentage of factor causing this symptom and to educate women to eliminate this illusion of foreign body like sensation in the throat.

**Methods:** All the women who consulted outpatient department with this symptom were evaluated clinically and investigated.

**Results:** Anemia topped the list among all the probable causes for globus pharyngeus.

**Conclusions:** Proper and adequate nutrition in women is a life-long process and it is important to eliminate the myth about Globus pharyngeus in women.

**Keywords:** Globus pharyngeus, Anemia, Nutrition

### INTRODUCTION

India has the world's fastest growing economy with a rich treasure of ancient heritage, culture and religion. Though it has the second largest population in the world, the health aspects of Indians are often neglected and ignored even though vast health facilities and resources are available. Health is an important factor that contributes to well-being and economic growth.<sup>1,2</sup> Amongst all, women's health must be prioritised, which is often overlooked upon. To adequately improve the health of women in India, multiple dimensions of well-being must be analysed in relation to global health averages. Currently, women face a multitude of health problems, which ultimately affect the aggregate economy's output.<sup>3,4</sup>

### Aims and objectives

- To identify the root cause for lump like sensation in throat.
- To assess the percentage of the factor causing globus sensation in the throat.
- To educate the women to eliminate the illusion of foreign body like sensation in the throat.

### METHODS

**Study design:** Prospective follow up study.

**Place of study:** Tertiary Care Hospital, Subbaiah Institute of Medical Sciences, Shimoga.

**Study period:** 6 months (from September 2017 to February 2018).

**Selection criteria**

A random sample of 486 women who consulted the ENT outpatient department with foreign body like sensation in the throat.

**Inclusion criteria**

Inclusion criteria were all women who presented with lump like sensation in the throat were considered for the study; only women aged between 15-45 years of age are considered for the study.

**Exclusion criteria**

Exclusion criteria were men and children were excluded from the study; all causes for dysphagia/ odynophagia were not considered for the study.

**Procedure of the study**

A random sample of 486 women who consulted ENT outpatient department with the complaint of foreign body sensation in the throat was selected for the study. A detailed ENT examination was done for all of them. Following examination, the women were categorised into 2 groups based on their presentation. The group with no abnormality detected on ENT examination, were sent to routine blood investigations. While the second group with various local causes were treated accordingly. Both the groups were managed accordingly and the results of the study are depicted below.

Both informed and written consent was taken from all patients during the study period. Ethical clearance has been taken from Institutional Ethical Committee before the start of the study.

**Group 1:** These are the patients who were diagnosed with anemia and were treated accordingly with nil ENT clinical evaluation. 328 patients showed improvement following anemia treatment and the rest 23 patients showed no improvement.

**Group 2:** These are the patients who did not show any response when they were treated for localised cause for Globus pharyngeus. When this non-responsive patients, were further investigated, they were diagnosed with anemia and treated for the same accordingly.

The flow chart as described below in Figure 1 gives an overview of the entire study that was conducted at our set up.

**Statistical analysis**

It is done with the help of Open-epi software and Chi-square test is applied.

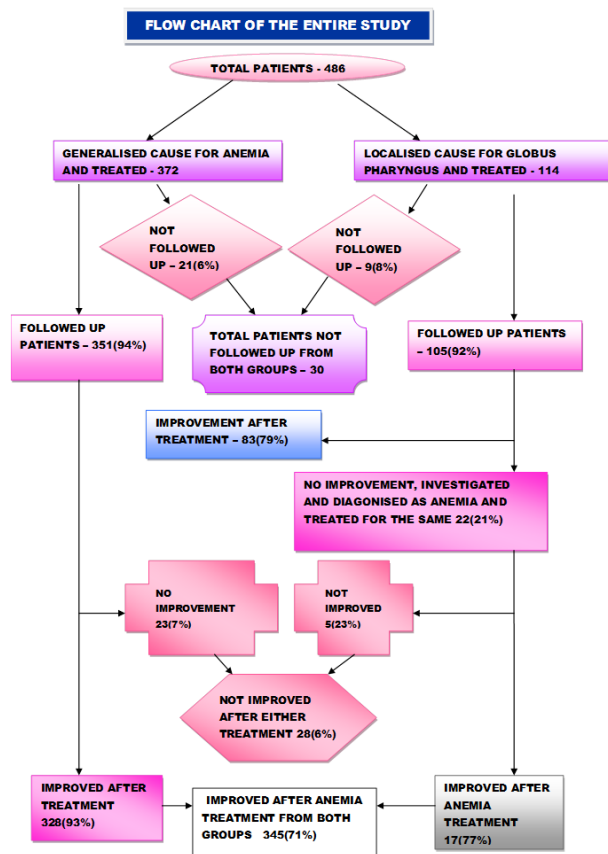


Figure 1: Flow chart of the entire case study.

**RESULTS**

Among the total of 486 patients included in the study, a majority of 372 have anemia, which is the root source for globus sensation in throat, while the rest 114 patients showed variable local causes for globus sensation (Figure 2).

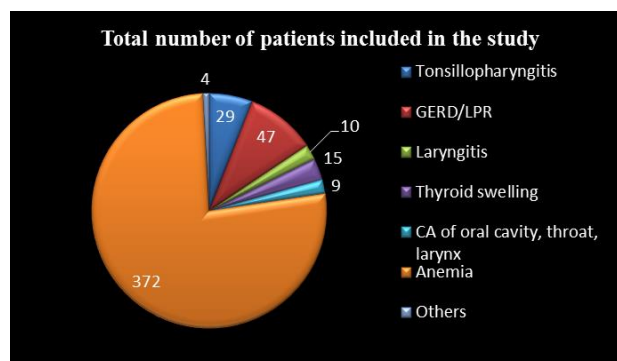
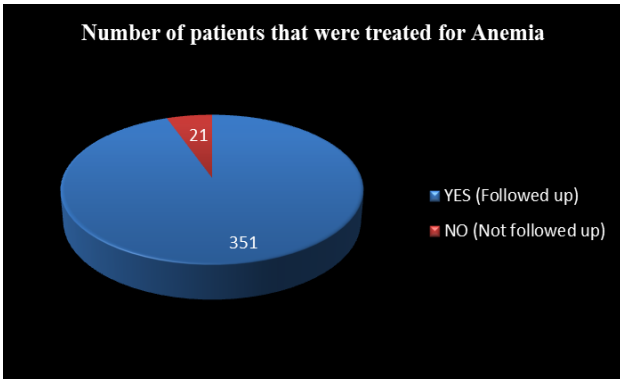


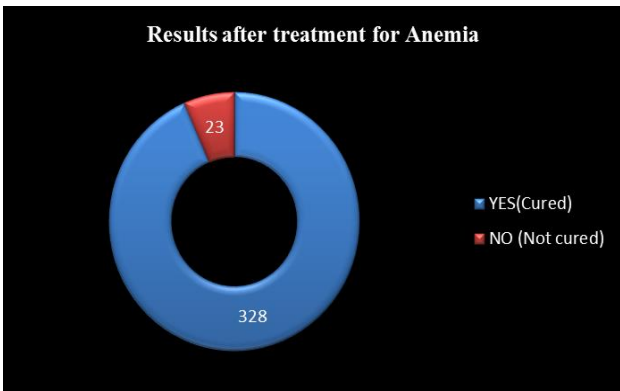
Figure 2: Total number of patients included in the study.

351 patients were followed up and 21 patients were lost to follow up among 372 patients who were followed up after receiving treatment of anemia (Figure 3).



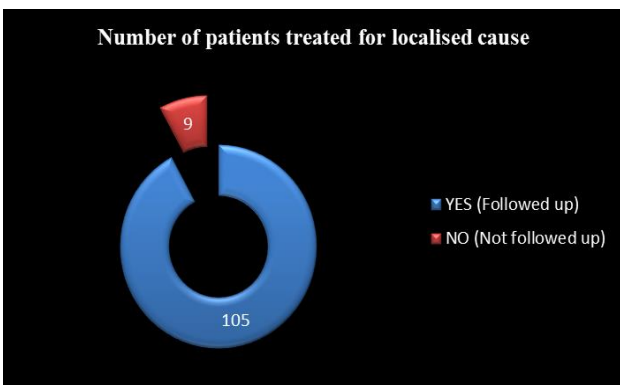
**Figure 3: Number of patients that were treated for anemia.**

A majority of 328 patients showed good improvement results while 23 patients showed no improvement out of 351 patients who were followed up after anemia treatment (Figure 4).



**Figure 4: Results after treatment for anemia.**

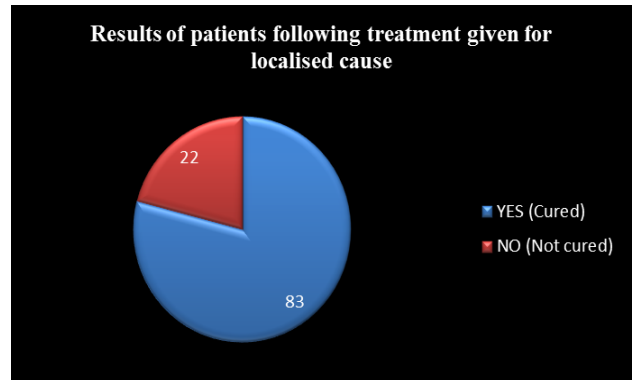
Of 114 patients, who were followed up after receiving treatment for local cause for globus sensation in throat, 9 of them were lost to follow up and 105 of them were followed up (Figure 5).



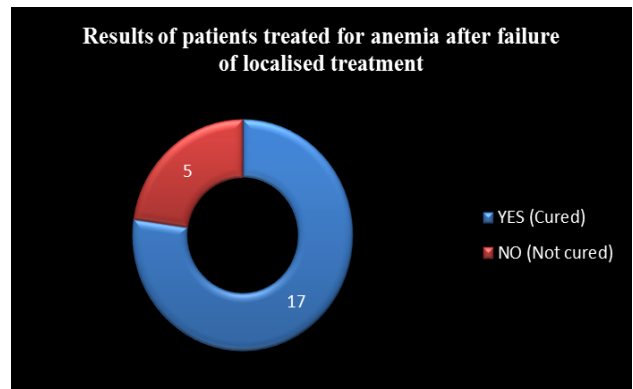
**Figure 5: Number of patients treated for localised cause.**

22 patients showed no improvement with the treatment given to local cause for globus sensation in the throat and

83 patients showed good improvement after treating the local cause (Figure 6).

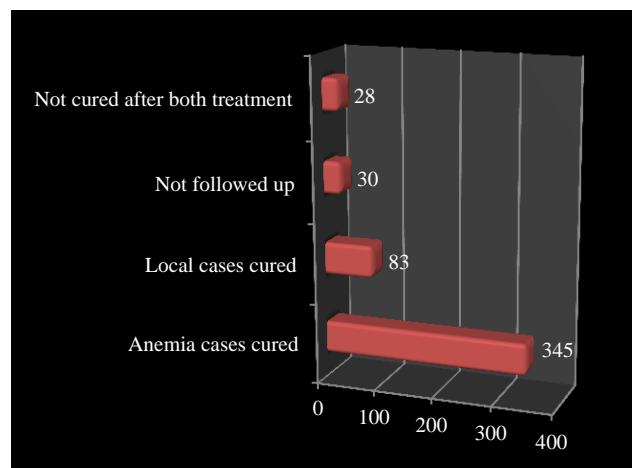


**Figure 6: Results of patients following treatment given for localised cause.**



**Figure 7: Results of patients treated for anemia after failure of localised treatment.**

Out of 22 patients with no improvement after treating for local cause were further investigated. They were diagnosed to have Anemia, which was masked by the local cause for globus sensation. 17 patients were cured after treating for Anemia while the rest 5 patients were not cured (Figure 7).



**Figure 8: Summary of 486 patients in this case study.**

Summary of the entire case study among 486 patients with globus sensation in the throat. 345 patients (328 + 17) that is (71%) were improved after Anemia treatment from both groups. 83 patients (79%) were cured of their local cause after treatment among 114 patients. 30 patients (21+9) that is (6%) lost to follow up from both groups. 28 patients (23 + 5) that is (6%) from both groups were not improved after either treatment (Figure 8).

### Statistical test

The Chi-square test was performed to identify the difference between the proportion of patients improved from Anemia treatment in both the groups as depicted above. The test showed that there is a significant difference between proportion of improved patients at 5% level of significance.

**Table 1: Chi-square test is applied in this study.**

Results of improvement after anemia treatment	Group 1 N (%)	Group 2 N (%)	Chi-square value	P value
Yes	328 (93)	17 (77)	7.801	0.0052
No	23 (7)	5 (23)		
<b>Total</b>	351	22		

## DISCUSSION

Women's health can be examined in terms of multiple indicators that vary by geography, socio-economic standing, culture and nutritional status. To adequately improve the health of women in India, multiple dimensions of well-being must be analysed in relation to global health averages and also in comparison to men in India. Currently, women face a multitude of health problems, which ultimately affect the aggregate economy's output.<sup>5,6</sup>

There can be variable causes encountered in the outpatient department with foreign body sensation in the throat which are tonsillopharyngitis, laryngitis, gastro-oesophageal reflux disease/laryngopharyngeal reflux, thyroid swelling, stygia, cancers, glossopharyngeal neuralgia, lingual hypertrophy, as a part of Plummer-Vinson syndrome, Foreign body in the throat, as a result secondary to Rhinitis or Sinusitis, Anemia and other miscellaneous causes for foreign body sensation in the throat which are generalised anxiety disorder, clinical depression, cricopharyngeal spasm and as a symptom of menopause.<sup>7-9</sup>

Anemia is the most common nutritional deficiency accounted worldwide which occurs when red blood cells do not carry enough oxygen to the body tissues. The hemoglobin content of anemic blood is lower than normal as a result of deficiency of one or more essential nutrients.

When neglected, anemia can lead to several issues ranging from foreign body sensation in throat to fatigue and even cancer.<sup>10,11</sup>

South Asia has the highest rates of anemia worldwide. 72 % women in the Eastern region of India have a higher prevalence of anemia than Western region.<sup>1,12</sup> In India, anemia affects women causing malnutrition and morbidity which inturn leads to mortality.<sup>7,13,14</sup> According to a study in the 2014, European Journal of Zoological

Research, 20-40% of maternal deaths in India are due to anemia and also National Nutrition Monitoring Bureau and Indian Council of Medical Research shows 80-90 % of preschool children, adolescent girls, pregnant and lactating women have anemia.<sup>9,15</sup> There are other contributing factors for anemia either individually or in combination which are stress, hormonal fluctuations, lack of intake of essential nutrients mainly due to gender inequality.<sup>16,17</sup>

In addition to a large number of Indian women suffering from anemia throughout their lives; whose deficiencies start with low birth weight infant females that worsen during adolescence and also with the onset of menstruation. Pregnancy further taxes an already anemic body. Socioeconomic class, residence, age and marital status all play indirect roles in anemia prevalence.<sup>8,18</sup> All adolescents are more susceptible to anemia during this stage of their lives due to the increase in muscle mass and blood volume as a function of growth and development.<sup>19,20</sup>

Culturally, there is also an inherent attitude towards providing for the males in the family first, that is gender inequality. This leads to girls and women being deprived of food with nutritional value. According to the World Health Organization, if the community prevalence of anemia is >40%, it is considered a high magnitude issue.<sup>5,11</sup> Although both international and national development campaigns have sought to decrease anemia burden in India, the real issue is the nutritional status of women throughout their lifespan.<sup>21,22</sup>

Preventing anemia is the main motto which is achieved by eating iron-rich foods such as meat, chicken, fish, eggs, dried beans, fortified grains, sprouts, green vegetables-spinach, milk, dates both variety, raisins, apples. The form of iron in meat products, heme, is more easily absorbed than the iron in vegetables.<sup>14</sup> Education, exposure to mass media, consumption of milk and its products, fruits, fish are other protective factors.<sup>23,24</sup> Eating foods high in folic acid such as dried beans, dark

green leafy vegetables, wheat germ and orange juice. Eating foods high in vitamin C such as citrus fruits, fresh and raw vegetables. cooking with cast iron pots can add up to 80 % more iron to your food. Because it is difficult to get enough iron from your diet, there may need to take an iron supplement.<sup>12,25</sup>

As in this study, out of 486 women as put up in Figure 2, with foreign body like sensation in the throat, 372 patients (77%) were diagnosed with Anemia as they had no abnormality detected clinically on ENT examination and this was confirmed on blood investigations as well.<sup>3,4,18</sup>

These 372 women were not just treated for Anemia with hematinics and deworming but moreover they were educated regarding building up their nutritional status as mentioned above, thus eliminating the myth of cancers or thyroid from their minds and also removing the psychological illusion for the same which is the main reason for which they got their consultation done.<sup>2,9,13</sup>

As mentioned in Figure 3, 21 patients (6%) among 372, lost to follow up for either reasons: they had recovered and benefited from the treatment or they did not take the treatment prescribed to them or they had found some other source and solution for their symptomatology. Rest 351 patients (94%) followed up after taking treatment for Anemia.<sup>12,17,19</sup>

328 patients (93%) showed good recovery results and improvement in their symptomatology as they mainly adapted lifestyle modifications and dietary alterations in their daily routine along with hematinics after deworming. The rest 23 patients (7%) were not cured of their symptomatology due to reasons unknown as shown in Figure 4.<sup>8,16,21,22</sup>

114 patients (23%) who had localised features for globus sensation in the throat were treated accordingly and relieved from their clinical condition as per requirement.<sup>1,6</sup>

9 patients (8%) were lost to follow up for similar reasons mentioned above and 105 patients (92%) followed up as shown in Figure 5 among 114 patients who received treatment for symptomatic relief.

As put up in Figure 6, out of 105 patients (92%) who were followed up after receiving treatment for local cause of globus sensation - 22 patients (21%) showed no improvement with the treatment, following which they were investigated as they did not respond to the primary cause for which they were treated. The rest 83 patients (79%) were cured after treating the local cause.<sup>5,7,20,23,24</sup>

22 patients (21%) who did not show improvement after treating for local cause were then investigated and 17 patients (77%) among them were diagnosed to have Anemia.<sup>15,25</sup> They were treated and benefited and rest 5

patients (23%) were not cured for unknown reasons which is depicted in Figure 7. This clinical picture was hidden as the local cause had masked Anemia, which was the primary cause for lump like sensation in the throat.

The summary of the entire results of the study is depicted in Figure 8.

So among the total 486 patients who visited the outpatient department with globus sensation in the throat, 372 patients (77%) were diagnosed Anemic.<sup>3,4,10,18</sup> Out of which 345 patients (71%) were cured of Anemia mainly by educating the women to build on their nutritional deprivation which was the source of their psychological illusion as well their myth for worst outcomes.<sup>9,12,13,15,16,21,25</sup> They were also dewormed and treated with hematinics. Hence, the objectives of the study were fulfilled by all means as the take home message was instilled in the minds of women to build their self- nutrition as well as to pass on this information to as many women as possible for the welfare in generations to come.

## CONCLUSION

Hence it can be concluded that, foreign body sensation in the throat is purely a psychological illusion running through the thoughts of women. This fact has brought a scare in the minds of women that there could be a probability of cancer or thyroid swelling which is not often the truth. Due to this dreadful thought, they get themselves consulted. Through this study an attempt was made to educate the women in our society regarding the root cause as Anemia being the factor that is causing globus sensation in the throat which is not just the mere reason to be neglected and primary focus has to be given to nutrition which are the building blocks of wellness. It is important to realize that proper nutrition is a life-long process, not a fad diet or one pill approach. From statistics, studies with anemia, it seems clear that the overall nutritional status needs to be enhanced from the beginning of the life cycle.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: The study was approved by the Institutional Ethics Committee*

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**Cite this article as:** Subramanya BT, Basavannaiah S, Lohith S. Globus pharyngeus in women: observations and opinions. *Int J Otorhinolaryngol Head Neck Surg* 2018;4:1462-7.