

Original Research Article

Knowledge, attitude and behaviour study on urticaria patients towards urticaria and diet

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ABSTRACT

Background: Urticaria ('hives' or 'nettle rash') consists of blanchable, erythematous, edematous papules or wheals. These wheals vary in size from 1 mm to many centimetres, and are usually very itchy. They are caused by vasoactive mediators, predominantly histamine, released from mast cells. In majority of cases, the wheals are transient, lasting for only a few hours in any one place, but with new wheals appearing in other places. The aim of the study was to assess the knowledge, attitude and behaviour towards urticaria and diet among patients.

Methods: A cross sectional study was done among urticarial patients visiting DVL OPD at Sree Balaji medical college and hospital using self-reported questionnaire from January to February 2021. Questionnaire was designed in manner that general population can understand and was distributed randomly irrespective of gender. Sample size of 50 was taken.

Results: The results of the study revealed that most of the patient had the knowledge about urticaria and were aware about their trigger factors. Regarding behaviour most of the patients were ready to do lifestyle modifications. Regarding attitude urticarial patient had no problems mingling with the normal people.

Conclusions: Urticaria is a relapsing condition with impact on quality of life. Specific elimination diets have observed high rates of response after a duration of 3 weeks. It has been confirmed that some patients experience worsening of symptoms after ingestion of foods including food additives as well as foods such as tomatoes, herbs, seafood, alcohol, and others.

Keywords: Urticaria, Diet, Wheals, Hives

INTRODUCTION

Urticaria ('hives' or 'nettle rash') consists of blanchable, erythematous, edematous papules or 'wheals'. These wheals vary in size and are usually very itchy.¹

They are caused by vasoactive mediators, predominantly histamine, released from mast cells.² In the majority of cases the wheals are transient, lasting for only a few hours, but with new wheals appearing in other places. The urticarial rashes move from one part to the other part

which is diagnostic of this condition. A number of foods have been reported to worsen symptoms of urticaria.³ These foods include alcohol, food additives, seafood, certain vegetables and fruits, fermented foods and others.

There are immunological and non-immunological triggers. Immunological triggers include galactose- α -1,3-galactose (α -gal) in meat and anisakis simplex in uncooked fish and nonimmunological triggers include compounds in tomatoes, food additives, herbs, wine, and other foods, as well as histamine in foods.

METHODS

A cross sectional study was done among urticarial patients visiting DVL OPD at Sree Balaji medical college and hospital using self-reported questionnaire from January to February 2021. Individual who were 18 to 60 years of age were included in this study. Questionnaire was designed in manner that general population can understand and was distributed randomly irrespective of gender. Sample size of 50 was taken.

Selection criteria of patients included in this study

Patients with following criteria's were included- (a) above the age of 12 years; and (b) with documented clinical evidence of urticaria.

Ethical approved was given by the institutional ethical committee.

Statistical analysis

Data was collected using a standard, semi-structured questionnaire. Questionnaire was presented in English through a google form. Data was entered in Microsoft word and represented in frequency and percentage.

RESULTS

Knowledge in urticarial patients

A cross sectional study was conducted to assess the knowledge, attitude and behaviour about urticaria and diet among urticarial patients. Among 50 patients, 72% experienced only wheals and 28% experienced both wheals and deep swellings. 88% presented with wheals all over the body and 12% over arms and legs. Only 6% of the patients had wheals that lasted more than 24 hours, whereas wheals resolved within 24 hours in 94% of patients.

Over 98% of patients experienced itching, dryness and scaling over the wheals whereas, 2% did not have itching

over the wheals. Among those 96% scratch whereas, 4% do not scratch. 90% of the patients experienced skin dryness and scaling over the wheals.

During the episode, 79% experienced runny nose, 16% with swollen tongue and 5% with fatigue. 98% attempted to change their diet to avoid urticaria. The foods predisposing to urticaria are as follows- seafood-48%, mutton-6%, chicken-8%, dry fish-20%, pickles-5%, tomato-2%, nuts-2%, cheese-3%, milk products-6%.

Attitude towards urticarial patients

Among 50 patients, 4% think urticaria is contagious whereas 96% think it is not contagious. 96% of people preferred to share food from the plate of an urticarial patient. It was easy to get a job for Urticarial patients in about 100% of patients. 95.9% of patients were treated with compassion by others whereas 4.1% were not. 14% were ashamed to share that they are an urticarial patient. And about 80% of patients found it difficult to avoid certain foods, 92% opined of improvement after stoppage of triggering food for more than a month. Most people had fair attitude towards the disease.

Behaviour towards urticaria

Over 76% of patients have taken treatment other than mainstream medicine whereas 24% opted only for mainstream treatment. 66% of patients have tried home remedies. Over 98% of patients prefer to consult a doctor and 96% were willing to do complete check-up in case of an episode whereas only 2% did not prefer to consult a doctor. 78% have taken Siddha treatment.

In 69.4% of patients, they have experienced these episodes after consuming Chinese food whereas, 74% experienced after consuming food containing additives. 92% of patients prefer to take homemade food. In case of Seafood allergy, 46% of patients have experienced episodes after consuming seawater fish and 26% of patients after consuming freshwater fish. And 98% of patients are willing to abstain from foods that they are allergic.

Table 1: Knowledge about urticaria.

Questions	
What lesions do you experience during an urticarial episode?	
I have wheals only	72
I have both wheals and deep swellings	28
Where are your wheals or swellings located?	
All over my body	88
Mostly on my arms and/or legs	12
Have you ever had a wheal or swelling which lasted more than 24 hours?	
Yes	94
No	6
Do you experience itchiness where you have wheals and/or swellings?	
Yes	98

Continued.

Questions	
No	2
Do you scratch?	
Yes	96
No	4
Is your skin dry and scaly where you have the wheals or swellings?	
Yes	90
No	10
Have you experienced any of the following symptoms during or shortly after a bout of wheals or swellings?	
Yes	60
If yes	
Runny nose	79
Fatigue	5
Swollen tongue	16
No	40
Did you ever observe that your symptoms are related to or become worse after consuming certain foods?	
Seafood	48
Mutton	2
Chicken	8
Dry fish	20
Pickles	6
Tomato	4
Nuts	6
Milk products	6

Table 2: Attitude towards urticarial patients.

Questions	Yes	No
Do you think urticaria is contagious?	4	96
Do others prefer to share food from your plate?	96	4
Was it easy for you to get a job?	100	
Were you treated with compassion by others?	95.9	4.1
Do you feel ashamed to tell others that you are an urticarial patient?	14	86
Do you find it difficult to avoid certain foods?	80	20
Is there any improvement in symptoms after stopping the food?	92	8

Table 3: Behaviour seen in patients.

Questions	Yes	No
Have you taken treatments other than mainstream medicine?	4	96
Have you tried any home remedies for urticaria?	96	4
Do you prefer to consult a doctor when you have an urticarial episode?	100	
Do you prefer to do a complete check-up in case of an episode?	95.9	4.1
Have you tried any siddha treatment?	14	86
Do you get an urticarial episode after eating Chinese food?	80	20
Do you get episodes after consuming foods containing additives?	92	8
Are you willing to abstain from foods that you are allergic to?		
Do you prefer eating?		
Homemade food	92	
Outside food	8	
Do you get an urticarial episode after eating?		
Fresh-water fish	26	
Sea water fish	46	
Neither	28	

Did you ever observe that your symptoms are related to or become worse after consuming certain foods ?

50 responses

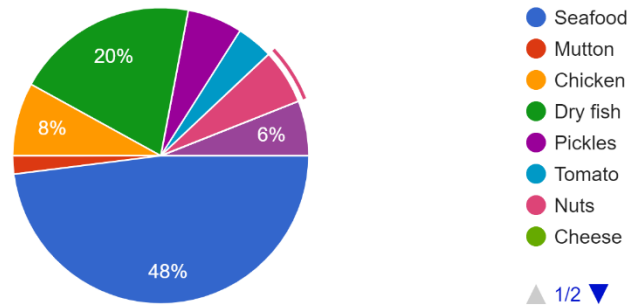


Figure 1: A pie chart depicting the association between urticaria and diet.

DISCUSSION

Patients with chronic urticaria practice dietary modification. Specific dietary changes may be helpful in a subset of patients. Trials of low-histamine diets have resulted in partial remission in a group of patients, while ingestion has confirmed that some patients experience worsening of symptoms after ingestion of food additives, tomatoes, herbs, seafood, alcohol, and other foods.^{4,5} While oral antihistamines remain the mainstay of therapy in urticaria, education on potential dietary factors may be offered to a group of patients. Education on dietary modification may be offered to patients, this approach may benefit only a group of patients.⁶ Any elimination diet should be used with caution because of the possibility for nutritional deficiencies.

Out of 50 patients, 4% think urticaria is contagious which is in contrast to the study by Khadka et al where 36% think the disease is contagious. It was easy to get a job for urticarial patients in about 100% of patients. Most people had fair attitude towards the disease, 96% of patients were able to share food and 100% of patients were able to get a job. This is consistent with the study by Khadka et al where 87.5% said they would hire these patients with urticaria in their office. 95.9% of patients said it would not affect the relationship towards the individual which is in contrast to the study by Khadka et al where it was found to be only 62.5%.

Over 76% of patients have not taken treatment other than mainstream medicine. 66% of patients have tried home remedies. Over 95% of patients prefer to consult a doctor and do complete check-up in case of an episode whereas only 32.5% of the participants consulted doctors whenever they developed symptoms of urticaria in the study conducted by Khadka et al. In 70% of patients, they have experienced these episodes after consuming Chinese

food or food containing additives. And 92% of patients prefer to take homemade food.

Limitation

Only the history given by the patient was taken into account hence, lack of reliability was the main limitation.

CONCLUSION

Urticaria is a relapsing condition with impact on quality of life. Specific elimination diets have observed high rates of response after a duration of 3 weeks. It has been confirmed that some patients experience worsening of symptoms after ingestion of foods including food additives as well as foods such as tomatoes, herbs, seafood, alcohol, and others. Oral antihistamines are first-line therapy, education on potential dietary factors should be offered to patients.

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Ethical approval: The study was approved by the institutional ethics committee

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