

Original Article

ASSOCIATION BETWEEN INTAKE OF MILK OR OTHER DAIRY PRODUCTS ALONG WITH FISH MEAT AND DEVELOPMENT OF VITILIGO

Sohaib Mazhar Siddiqui, Maaz Ahmad and Asif Hanif

Objective: To establish whether there is an association between intake of milk or dairy products along with fish meat and development of vitiligo.

Material & Methods: This case control study was conducted in outdoor Dermatology Department Mayo Hospital, Lahore and in some urban areas of Lahore from 7th of August 2003 to 5th of September 2003. Subjects were selected among the adult population. 40 cases and 63 controls were taken.

Results: 57.5 % cases and 61.90% controls were factor positive. The chi-square test was applied and p-value was found to be 0.656 which is not statistically significant.

Conclusion: No association was found between drinking of milk or other dairy products with fish meat and development of vitiligo.

Keywords: Fish Meat, Milk, Dairy Products, Vitiligo

Introduction

Vitiligo is a common disorder of depigmentation. It presents in childhood or in early adult life with well demarcated macules of complete pigment loss. Lesions are often symmetrical and frequently involve the face, hands and genitalia. The hair can also depigment.¹ Nearly 40% of the patients give positive family history. Central nervous system plays important role as many cases appear after stress and some show segmental distribution.² There is no history of preceding inflammation. Trauma may induce new lesions.¹

Onset in half the cases is before 20 years of age. Convex milky white patches increase in size by confluence. New areas can be affected while the old patchy areas disappear. Skin surrounding vitiligeneous patches is often hyper-pigmented.²

The exact etiology of vitiligo is unknown, but four main theories exist to explain it: the autoimmune hypothesis, the neural hypothesis, the self-destruct hypothesis, and the growth factor defect hypothesis. It is also believed that vitiligo is a polygenic trait. Combining elements of different theories across a spectrum of expression is the most accurate etiology.³ It is treated both medically and surgically. Medical treatment includes the immunosuppressive therapy, phototherapy and photochemotherapy (UV radiations of 290-320 nm), and bleaching therapy. It is also treated surgically by grafting healthy skin patches over lesioned areas.⁴

72.2% of the Pakistani population believes that one should not take milk or other dairy products along with fish meat as it causes vitiligo. To confirm whether this belief in the people of Pakistan is true or not, this study was conducted.⁵

Material and Methods

People having a familial predisposition towards vitiligo were excluded from the study because this is a major risk factor contributing towards the disease. The children were also excluded as they could give false answers in the questionnaire. The study included only the Pakistani citizens as this study was conducted to confirm the belief of this particular group. After excluding, the people suffering from vitiligo were considered as cases while the people not suffering from vitiligo were taken as controls in this study.

The dependant variable in this study was vitiligo while the independent variable was history of intake of milk or dairy products along with fish meat. Hence both the cases and the controls were subdivided into cases with factor and cases without the factor. A null hypothesis that "there is no association between taking milk or other dairy products along with fish meat and development of vitiligo" was deduced and was tested.

The study was conducted in outdoor of Dermatology department, Mayo Hospital Lahore and in some selected urban areas of Lahore. The subjects included from the Mayo Hospital Lahore were mostly

from different cities like Lahore, Sheikhpura, Gujranwala, Wazirabad, Kasur, Raiwind and different villages of other districts. People from some urban areas of Lahore were also included who did not come to Mayo Hospital. They were taken from Gulshan-e-Ravi, Wahdat Colony, Township and Samanabad areas of Lahore.

A questionnaire comprising biodata and queries about familial predisposition, history of intake of fish meat with milk or dairy products was distributed among the study participants.

Results

In this study a sample of 103 with both genders was selected of which 40 persons were cases and 63 persons were controls. The mean age of patients was 37 ± 1.4 years. There were 67 males and 36 females. 26% patients presented with family history among cases. Among controls non of the patients presented with positive family history. Finally all subjects were divided in, “the persons who have history of taking fish meat with milk or dairy products or not taken that”. The results are shown in **table 1**.

Table-1: Intake fish with milk or dairy product.

	Vitiligo			
	Yes	No	Total	
Intake fish with milk or dairy products	Yes	23	39	62
	No	17	24	41
Total		40	63	103

Discussion

There is a belief in our society that taking milk or dairy products along with fish meat can depigment the skin.⁵ In this study only 26% patients presented with positive family history which is less than reported by Haroon TS.² As vitiligo causes social and psychological sufferings among the people, they tend to avoid taking these two items together in their meals. But as the questionnaire was filled by different people of the society pertaining to both the sexes and different areas of Punjab and p-value came to be 0.656 with odd's ratio 0.83 meaning that there is no strong relationship of taking milk or dairy products with fish meat with vitiligo and it proves to be a sheer myth.

Conclusion

The results show that there is no harm in taking milk or dairy products along with fish meat and people can take them without any fear of developing vitiligo.

*Department of Community Medicine
King Edward Medical University, Lahore*

theesculapio@hotmail.com

www.sims.edu.pk/esculapio.html

References

- 1) Kumar P, Clark M. Kumar & Clark Clinical Medicine. 5th ed. , M/S W. B. Saunders, Edinburgh, London, New York, Philadelphia, St Louis, Sydney, Toronto, 2002; p. 1312.
- 2) Haroon TS. ABC of dermatology, 8th ed. M/S
- 3) Njoo MD, Westerhof W. Vitiligo: pathogenesis and treatment. Am J Clin Derm 2001; 2(3): p. 167-181.
- 4) Taneja A. Treatment of Vitiligo. J Derm Treatment 2002. 13: 19-258.
- 5) Qadwani W, Alim N, Azam SI. Myths & fallacies about health & disease among patients presenting to family physicians at the Agha Khan University Hospital Karachi, Pakistan. Pak J Med Sci 2002; 18(4): p. 287-290.