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Research Article

**AWARENESS OF DOCTORS ABOUT THE DEFICIENCY OF
VITAMIN D AMONG THE POPULATION OF LAHORE**¹Dr Abdullah Sajed, ²Dr Maria Batool, ¹Dr Ata Ullah¹Social Security Teaching Hospital Lahore, ²Allama Iqbal Medical College Lahore**Article Received:** June 2019**Accepted:** July 2019**Published:** August 2019**Abstract:**

Objectives: The aim of this research work is to evaluate the awareness of doctors in the city of Lahore about the deficiency of vitamin D.

Methodology: This was a descriptive transverse research work conducted in various hospitals in the city of Lahore from the start of March 2018 to July 2018. Total 300 hundred doctors having registration from PMDC were the participants of this research work. We arranged a well-organized Performa to collect the information. An investigator completed every interview. The questions were about the metabolism & the sources of Vitamin D, Vitamin-D's deficiency, the presentation of this issue in these medical centers and steps for its administration.

Results: Total 300 doctors completed the questionnaires. Findings show that doctors have the knowledge about the sources & metabolism procedure of Vitamin-D but doctors were lacking information about the time duration & factors about the exposure to sunlight. Doctors have sufficient awareness about the symptoms of the deficiency of Vitamin-D as well as factors responsible for this issue, but doctors were present with no much information about the management of the deficiency.

Conclusion: The findings of this research work support the reality that there is need among doctors to get more awareness & training about the deficiency of the Vitamin-D.

Key Words: Metabolism, Sunlight, Osteomalacia, Rickets, Registration, PMDC, Physicians, Vitamin-D.

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INTRODUCTION:

The deficiency of Vitamin-D can lead to the hypocalcaemia, hyperparathyroidism of severe nature & high turnover of bones. This may have association with the osteoporosis as well as fractures. In serious prolonged cases, the occurrence of osteomalacia & rickets can happen, causing pain in bones and no proper gait. The deficiency of the Vitamin-D is the issue of the complete world which is not being well-treated in the whole world. This issue is affecting the populations from developed as well as under develop countries. The deficiency of the Vitamin-D may pose a great danger in the countries of the Asia, as the evaluation of the status of Vitamin-D & education of the Vitamin-D is not under much consideration. There are some reports that doctors have very low level of training in the nutrition & adverse awareness about this subject.

There are few research works conducted to evaluate the awareness about the micro-nutrients especially Vitamin-D & they have showed that deficiency of the awareness doctors about the medical & general factors of the Vitamin-D. According to our research, there was no research work on this topic was present in this region of the country. The aim of this research work is to evaluate the awareness of the doctors about the deficiency of Vitamin-D.

METHODOLOGY

This research work is descriptive transverse study was carried out in various hospitals in the city of Lahore from March 2018 to July 2018. Total 300 doctors having registration from PMDC were the part of this research work. We took the written consent from every participant of the research work. We used a well-organized questionnaire consisting eleven questions with open and close ends for the collection of the information. An investigator filled the questionnaire in interview with every doctor. We ensured that questionnaire was present as completely filled and no question was present without answer.

Following areas were under testing in this questionnaire as sources of Vitamin-D, metabolism of Vitamin-D, factors of risks having association with the surplus amount & lack of Vitamin-D, the presentation of the issue and its management in the medical centers. We also asked the doctors about the exposure to sunlight daily and utilization of the multi-vitamin. SPSS V.15 was in use for the statistical analysis of the collected information. We used the frequencies & SD for the presentation of the categorical data.

RESULTS:

All four hundred doctor filled the questionnaires. These physicians were from all the medical fields. The asked questions are present in a simple form present in Table-1.

Table I: Questions Asked, Correct Answers and Percentage of Doctors with Correct Answer.

No	Questions+	Correct answer	%Correct
1	Major dietary sources of vitamin D++	Fish liver oil, egg yolk, meat, milk	60.00
2	Active form of vitamin D	1,25 (OH) ² vitamin D	83.00
3	Favorable conditions for sunlight absorption++	Thin skin, fair skin, 10:00am-2:00pm sunlight	25.00
4	Duration of sunlight exposure necessary	2 hours	43.00
5	Signs/symptoms of vitamin D deficiency++	Tiredness, nausea & vomiting, soft skull & leg bones in children, muscle pain & weakness, curved leg.	64.00
6	Risk factors for deficiency++	Indoor lifestyle, vegetarian, obesity, genetics.	80.00
7	Diseases of systems leading to deficiency++	GIT, liver, bone, skin, kidneys	81.00
8	First step in management of deficiency	Confirm diagnosis by serum Ca ⁺² and vitamin D levels	33.00
9	Treatment of deficiency in non-affording	Give parenteral vitamin D	50.00
10	Mode of administration of parenteral vitamin D	Intramuscularly	64.00
11	Vitamin D is important for++	Bone, muscle, immune system, anticancer effects, skin	85.00

The research work displayed that 60.0% rightly discovered the Vitamin-Ds sources & aware that it is present only in the food from the animals and it was not present in green vegetables as well as fruits. Most of the doctors (83.0%) were aware that active metabolic type of this very vitamin is 1, 25 Di-hydroxy Vitamin-D. 71% doctors know that favorable states for the absorption of the sunlight and forty percent were aware that necessary exposure to sunlight for the synthesis of the Vitamin-D is 2 hours. Approximately, sixty percent participants rightly pointed out the reality that there is no limitation of the signs & symptoms of deficiency of Vitamin-D to only pain in muscles as well as weakness but other features can be the result of this complication, while, 80.0% correctly discovered the risk factors for the deficiency of Vitamin-D & 81.0% were aware that different diseases of greater than one system present in human body can lead to the condition of deficiency.

Fifty percent doctors gave response that for a patient who can afford having suspicion of deficiency of Vitamin-D, they would get parenteral Vitamin-D & sixty percent doctors correctly discovered that the administration of the Vitamin-D is possible intramuscularly in gluteal area. Total 61.0% doctors were not aware that there are some systems except muscles & bones which are in need of Vitamin-D such as the immunity system & the prevention of the cancer. All the doctors were present with the view that there should be small workshops to refresh the knowledge about these topics among doctors.

DISCUSSION:

In current research work, we evaluated the awareness level of the physicians about the deficiency of Vitamin-D. This research work displayed that though awareness level was good but there was deficiency of the data regarding the management of the issue. Vitamin-D performs an important role in the metabolism of bone and maintaining the health of bones, and it is also much important for the functioning of muscles. Long-term impacts of the lack of Vitamin-D have the association with many disorders of the bone like osteoporosis. In our country Pakistan, this is very widespread issue. Siddiqui & Rai discovered that in the Northern areas of Pakistan with no abundance of sun light, a very common health problem among infants is rickets. Atiq examined the hypovitaminosis-D in healthy children feeding through breast & nursing mothers in very famous hospital of Lahore and discovered that 55.0% infants & 45.0% mothers were present with low levels of serum twenty-five (OH) D levels (less than twenty-five mmol/l or ten ng/ml).

They found a deficit knowledge about nutrition among doctors.

Most of the doctors found with no expertise to advise the patients properly on the vital features of the nutrition role in the causation & the prevention of the complication. This obviously shows less priority provided to this matter in the schools of the medical field. A current research on the doctors of America discovered that that many more doctors would provide nutritional counseling to the patients except for issue of different barriers. Total 60.0% felt that deficiency of the awareness about the dietary was on such barrier. In one research work, professionals of health care field showed their wish to get clear information about the guidance in association to the supplementation of the Vitamin-D. Skedros observed the same results in his work in which most of the doctors were present with reluctant knowledge about this matter when he surveyed one hundred and seventy-one orthopedic surgeons working in Utah, Idaho and the purpose was to find out the awareness & conceptions of these professionals to start the therapy for osteoporotic fracture. Among these seventy percent doctors were comfortable in the prescription of the supplements of Vitamin-D and calcium.

Joiner in his research work on five hundred pediatricians found that they were aware about the proper procedures to detect and treat the complication of rickets due to deficiency of Vitamin-D. But intervention of education is the requirement for the promotion of the rampant use of the supplementation of Vitamin-D in the infants on breastfeed. A poll in UK discovered that only 35.0% out of 2000 adults of UK were aware that there is requirement of Vitamin-D for healthy bones. A survey conducted on fifteen hundred and thirty-five community-dwelling males with average age of seventy-nine years to ascertain their awareness about the health of bones & its diseases in United States of America. Only 39.0% rightly responded to the question about the supplementation of the Vitamin-D. There is very important role of the care providers of the medical field for the management of the issues related to the deficiency of Vitamin-D with the implementation of the prevention procedures.

CONCLUSION

It is vital that doctors should have familiarization with the sources, metabolism & role played by Vitamin-D to discover the persons who are at risk to have the deficiency of Vitamin-D and various complications associated with this disorder as osteoporosis & fractures.

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