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EDITORIAL

CAN WE PREVENT CANCER?

Greeks considered that cancer was a mysterious disease, caused by angry Gods. For a long time it was considered a malady, which struck unfortunate patients. When advances in medicine were made, cancer was still considered a disease of unknown etiology. Now with extensive research we can say with confidence that the cause of cancer is both hereditary as well environmental whereas hereditary or genetic factors play a definite role in some cancers like breast and colorectal cancer, most of the malignancies are caused by environmental factors. It is not easy to segregate hereditary and environmental causes, as most of the hereditary cancers are also influenced by environmental factors.¹

The role of environment in causing cancer is supported by epidemiological studies. Some of the cancers like liver, stomach, esophagus and oropharynx have wide geographical distribution because of exposure to different environments. Breast cancer has generally higher incidence in developed countries than in developing countries. Same has been confirmed by various animal experimental studies.²

The role of various environmental factors has been confirmed beyond doubt. The examples include infectious agents like Human papilloma virus and cervical cancer. Association of Hepatitis C virus and liver cancer is known for some time. Similarly smoking is a precancerous condition for lung cancer. Other environmental carcinogens like UV light, asbestos and arsenic are confirmed carcinogens.³ Even global warming has been implicated in increase in incidence of cancer. It has been reported that a rise in average summer temperature of between two and four percent could produce 'substantial increases' in the number of new cases of skin cancer.⁴

Now we come to the basic question that can we prevent cancer? Safe answer would be that up to certain extent we can reduce the prevalence of cancer by cleaning our environment. This is too much simplifying of a gigantic problem. Somebody rightly said that we are floating in sea of carcinogens. We have ruthlessly destroyed our environment. We are inhaling polluted air. Driving behind a bus or truck is like puffing 20 cigarettes simultaneously. Our water table is polluted by industrial waste containing Arsenic and Mercury. Due to air pollution we are more exposed to radiation from the sun.

Who will clean the environment? There is no awareness among our population. People have no idea what is clean environment. Even educated people are not bothered about protecting our environment. Breathing clean air and drinking safe water is not a priority of our people! This requires a concentric effort by the government, media and NGOs to educate the masses and create awareness about the benefits of a save environment. Until then cancer is not a preventable disease and we will continue from this incurable malady, which could have been easily preventable!

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TRENDS OF UTILIZATION OF ANTIMALARIAL DRUGS IN PEOPLE OF RAWALPINDI AND ISLAMABAD

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ABSTRACT

Objective:

To study pattern of use of antimalarial drugs in adults Pakistani individuals with a view that irrational use of such drugs leads to development of resistance in causative microorganisms.

Place of study:

Study was conducted among adult Pakistani individuals of either sex living in urban areas of Rawalpindi/Islamabad district.

Materials and methods:

It was retrospective study. Drug utilization pattern of antimalarial drug was studied by observing the response of people through questionnaire which were written in both Urdu and English languages. They were distributed randomly among 2000 individuals. Data collected through questionnaires was analyzed on computer by using the software, EPIINFO version 6.04.

Results:

A questionnaire was distributed among two thousands individuals and response came from 1484 individuals. 572 admitted of doing self medication for common diseases. Self medication with antimalarial drugs was seen among 326 individuals and out of them 193 specified the drug chloroquine for self medication while remaining 133 used other antimalarial drugs. Right dose administration was found in 81 cases only. The general trend in compliance to prescriber's instructions was also observed. 1045 respondents were found to follow the prescriber's instruction and 439 individuals admitted to be non-compliant. The most common form of non-compliance was reduction in prescribed duration of treatment. Compliance was found to be inversely related to the educational status of the participants and it was lowest (54.55%) in postgraduate group.

Conclusion:

Through this study it was found that significant number of Pakistani population practiced self medication for malaria; irrational use of such drugs may lead to drug induced resistance and adverse effects against them.

Keywords:

Malaria, Antimalarial drugs, Drug utilization patterns in Pakistan

INTRODUCTION

Malaria is the most common infectious disease of humans caused by intracellular protozoan parasite of genus plasmodium. Worldwide 300 million

people suffered from malaria and more than one million deaths occurred per year.¹ According to a survey by WHO about 1.6 million cases reported each year in Pakistan.² In an about 103 countries of the world it is present as an endemic form. In humans it is mainly caused by plasmodium falciparum and plasmodium vivax.³ In Pakistan plasmodium vivax and plasmodium falciparum are the most common species causing malaria.⁴

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According to a report about malaria, total number of confirmed cases of malaria in Pakistan in 2011 from all the districts were 319,592, out of which 205,879 (67%) cases were due to plasmodium vivax infection, while 113,713 (33%) were due to plasmodium falciparum infection.⁵ Chloroquine, sulfadoxine/pyrimethamine (Fansidar) and artemether/lumefantrine are most commonly used antimalarial drugs by the doctors⁶ and WHO has approved Artemisinin Combination Therapy as first line therapy for the treatment of uncomplicated malaria.⁷ In many developing countries like Pakistan antimalarial drugs are being used inappropriately by clinicians, general practitioners and health facilities⁴ therefore right use of these antimalarial drugs and patient's attitude towards pattern of drug use is important to prevent emergence of resistance.⁸

Self-care is what people do for themselves to establish and maintain health, prevent and deal with illness.⁹ It is the utilization of drugs without physician's prescription, using old prescriptions to purchase medicines, sharing medicines with relatives or others or using leftover medicines present at home.¹⁰ Practice of self-medication is common in many developing and under developed

countries, it varies in different population group and influenced by factors like age, sex, education, society, availability of drugs and nature of disease.¹¹ Irrational prescribing practices, self-medication, lack of awareness and non-compliance to prescriber's advice all contribute to the development of resistance and also increase economic burden to the patient and society.⁶

Drug utilization studies are an important epidemiological tool to find out the over/under use or misuse of individual drugs or therapeutic classes of drugs in a society. Description of patterns of use of antimalarial drugs in specific population was the main objective of this study. By knowing the trends of utilization we can assess the wide variation in the patterns of drug prescribing and consumption and it could help to facilitate rational use of drugs.

MATERIALS AND METHODS

It was randomized, questionnaire based cross sectional study. About two thousand adult people of both sexes who were living in Rawalpindi/ Islamabad having age range above eighteen years, with no upper age limit were included in this study. To evaluate drug utilization parameters of antimalarial drugs in Pakistani individuals a

Table I: Pattern of Drug Utilization with Particular Reference to Antimalarial Drugs (n= 1484)

1	SELF MEDICATION	572 (38.54 %)
2	MEDICATION ON PRESCRIPTION BY UNAUTHORISED MEDICAL PRACTITIONERS	278 (18.73 %)
3	SELF MEDICATION WITH ANTIMALARIALS (OTHER THAN CHLOROQUINE) DURING THE PREVIOUS ONE YEAR	133 (8.96 %)
4	SELF MEDICATION WITH CHLOROQUINE DURING THE PREVIOUS ONE YEAR	193 (13.01 %)
5	TOTAL INCIDENCE OF SELF MEDICATION WITH ANTIMALARIALS DURING THE PREVIOUS ONE YEAR	326 (21.97 %)
6	APPROPRIATE DOSAGE IN SELF MEDICATION WITH ANTIMALARIALS	81 (5.46 %)
7	UNDERDOSAGE IN SELF MEDICATION WITH ANTIMALARIALS	123 (8.29 %)
8	GENERAL TREND IN COMPLIANCE TO THE PHYSICIANS PRESCRIBING INSTRUCTIONS:	
	a. STRICT COMPLIANCE:	1045 (70.42 %)
	b. NON-COMPLIANCE (TOTAL):	439 (29.58 %)
	1. NON-COMPLIANCE IN DRUGS	227 (15.29 %)
	2. NON-COMPLIANCE IN DOSAGE	148 (9.97 %)
	3. NON-COMPLIANCE IN DURATION OF MEDICATION	255 (17.18 %)

questionnaire was made. It was written in both Urdu and English languages and distributed randomly among the participants of study. The questionnaire was given in an interview form to those who could not read. Data collected by questionnaire was analyzed on computer by using the software EPI INFO version 6.04.

RESULTS

To study drug utilization pattern of antimalarial drugs, questionnaires were distributed in two came from 1484 individuals. Practice of self-medication thousands individuals and among them response for common disease was found in 572 individuals. 326 individuals admitted that they self-administered the antimalarial drug. Out of them, 193 individuals could mention the name of chloroquine used for self-medication, while remaining 133 used other antimalarial drugs for self medication as shown in Table I. Related to amount of dose administered by them, only 204 people could mention the dose used by them and among them it was found that 123 persons used low doses of antimalarial drugs while only 81 individuals used proper doses of these drugs.

In respect to compliance to the physician's instruction, 1045 persons admitted that they followed prescriber's instruction. Response of non-compliance came from 439 individuals. Out of them 227 did not administer the entire drug regimen advised by physician and 148 mentioned that they did not use full doses of drugs given to them by the doctor. Most common practice of non-compliance was in the form of using the prescribed drugs for shorter duration of treatment and this form of non-

compliance was seen in about 255 individuals (Table I).

Participants of this study were divided according to their educational status into following groups to analyze drug utilization pattern.

- i) Uneducated
- ii) Received education up to primary or middle level
- iii) Received secondary school education
- iv) Undergraduate level
- v) Received post graduate degree or university education

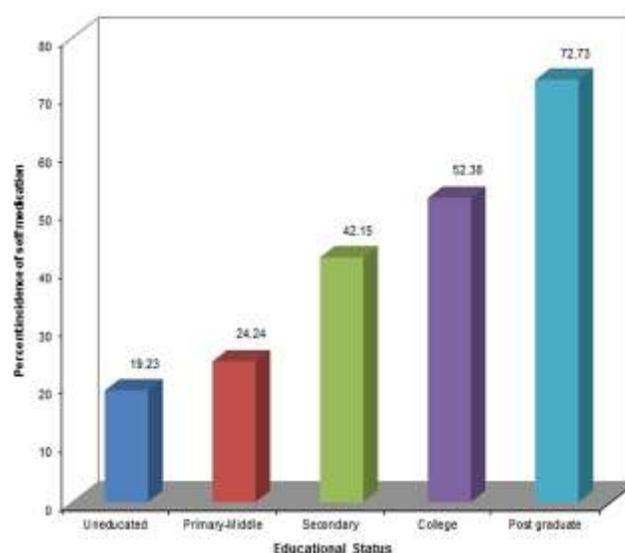


Figure 1: Incidence of Self-medication in Relation to Educational Status

The patterns of drug utilization in these groups are shown in Figure I and Table II.

Table II: Pattern of Drug-Utilization in relation to Educational Status

	Self Medication	Medication on prescription by unauthorized physicians	During the previous one year			General Trend in compliance to physicians instruction	
			Self medication with anti-malarial other than Chloroquine	Self medication with chloroquine	Underdosage in self medication with anti-malarials	Strict compliance	Non-compliance
1. Uneducated Group (n-312)	60(19.23%)	114(36.54%)	17(5.45%)	21(6.73%)	9(2.88%)	253(81.09%)	59(18.91%)
2. Primary to middle school educated Group (n-264)	64(24.24%)	40(15.15%)	24(9.1%)	36(13.64%)	16(6.06%)	224(84.85%)	40(15.15%)
3. Secondary School educated Group (n-484)	204(42.15%)	68(14.05%)	48(9.92%)	80(16.53%)	40(8.26%)	336(69.42%)	148(30.58%)
4. Undergraduate College Group (n-336)	176(52.38%)	48(14.29%)	30(8.92%)	34(10.12%)	28(8.33%)	192(57.14%)	144(42.86%)
5. Postgraduate Educated Group (n-88)	64(72.73%)	8(9.09%)	12(13.64%)	12(13.64%)	4(4.55%)	48(54.55%)	40(45.45%)s

DISCUSSION

Pakistan has low to high endemicity for malaria. FATA, Baluchistan and KPK are high endemic areas while malaria endemicity in the Punjab is relatively low.¹² Drug utilization research was defined by WHO in 1977 as “the marketing, distribution, prescription, and use of drugs in a society, with special emphasis on the resulting medical, social and economic consequences”. According to National Treatment Guidelines, presumptive treatment of malaria should be avoided and antimalarial drugs should be prescribed after proper diagnosis, as inappropriate use may lead to parasite resistance and drug induced side effects.¹³

In this study drug utilization trends with particular emphasis on antimalarial drugs were studied. In Pakistan, drugs are usually sold without prescription at various sale points so there is easy access to drugs which along with inadequate health care facilities leads to increased utilization of drugs as self-medication as compared to prescribed drugs. In present study, self medication was found to be more common in males. It may be due to their increase social activities as compared to females in our society which enable them to exchange their ideas including their experiences with drugs. Self medication was found to be lowest among the illiterate (19.23%). While on other hand, self medication was 72.73% in the post graduate group and they all accepted that they used self-prescribed antimalarial drugs to treat their self-diagnosed malaria on their own initiative. It may be due to more exposure of youth to the media and the increased advertisement of pharmaceuticals products.¹⁴ This shows that the educated individuals have better knowledge about the diseases and types of drugs used for their cure. Similar results have reported from Spain¹⁵ and USA.¹⁶ However in a study by Saradarmma et al¹⁷, it was reported that in Indian state of Kerala, practice of self medication seems to be less common among educated group.

It is very commonly seen in our Pakistani setup, especially people living in rural areas used to take the drugs advised to them by quacks and it was shown in this study that 18.73% people accepted that they used drugs on advice of quacks. This thing was most common among the uneducated and least

common among highly educated group. But a little difference was found in consultation of quacks between secondary school educated (14.05%) and college goers (14.29%), showing that college level education does not increase the awareness about proper usage of drugs. This quackery is an important cause of development of resistance in the microorganism. In our study it was found that self medication with antimalarial drugs was more in males (26.9%) as compared to females (19.55%) and chloroquine was found to be most commonly used for self medication. Nacher et al¹⁸ reported that self medication with antimalarial drugs helped to decrease the morbidity due to malaria. But dosage and duration of treatment are usually ignored in self-medication.¹⁹ In another report by Laporte²⁰, it was mentioned that self medication leads to improper drug utilization trends. Compliance to physician's instruction was high in our sample of people with a minor difference among the males (66.7%) and females (69.04%). However it was lowest in postgraduate group, showing that education in our country does not help to improve the ways of drug utilization.

CONCLUSION

High prevalence of self-medication with antimalarial drugs was found to be present among educated adult group. These drugs are prone to misuse because malaria is a common infectious disease and drugs to treat them are easily available. Irrational utilization of these drugs leads to development of resistant strains of plasmodium falciparum which are difficult and costly to treat. So drug utilization of antimalarial drugs needs improvement through educational and regulatory strategies. Self medication practices should be discouraged by launching public awareness programs which would also help to educate the people about prevention of malaria and its treatment strategies and how rational use of these drugs would prevent occurrence of resistance against malaria.

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ASSESSMENT OF TEACHING BIOETHICS AND COMMUNICATION SKILLS TO FINAL YEAR MEDICAL STUDENTS

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ABSTRACT

Objective:

To assess the effects of a workshop on final year medical students about their perception of bioethics and communication skills.

Place and duration of study:

Foundation University Medical College, Islamabad, Pakistan

Methodology:

A 2-days workshop was designed in September 2013 by a multi-disciplinary team which included various themes like doctor-patient relationship building skills, breaking bad news, dealing with distressed patients and patients with psychosocial issues and conflict resolution along with negotiation skills. At the end of the workshop role playing on these issues was conducted and evaluated by a panel of teachers. Students evaluated themselves on a pre & post workshop survey form to see the impact of training on their communication skills and bioethics understanding moreover grading of students was also done on a performa containing five points ranging from zero meaning very bad performance to 5 having best performance.

Results:

The survey showed a marked increase in improved understanding and awareness of communication skills and bioethics among medical students with P Values <0.001 for all dimensions measured.

Conclusion:

Our study shows that these workshops are not an ivory tower concept and can be conducted successfully by training in-house faculty and with minimum logistics and they enhance the understanding of bioethics and communication skills.

Keywords:

Bioethics, Interactive workshop, Teaching communication skills, Young medical students

INTRODUCTION

Communication skills and bioethics teaching is one of the very important soft skills in professional development of future young medical professionals and deficiencies among medical students in learning doctor-patient communication skills has since long being recognized. Also lacking is realization about common ethical issues among medical teachers, curriculum designers, planners

and policy makers.¹ A doctor can be called as “Good Doctor” when apart from having up-to-date knowledge; he should have effective communication skills while dealing with colleagues and with patients as health care provider.² Although it is a fact that some qualities are inborn but effective communication skills can be taught and learned as we know that “professionalism is the basis of medicine's contract with society”.³ Current medical education and curriculum must be taught in away that there should be an equal importance for gaining knowledge as well as developing good communication skills and attitudes.⁴ These

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faculty appreciated their presentations. It was very difficult to decide which group performed the best and all groups scored almost equal marks. After the workshop students have to fill up the same questionnaire given at start of workshop to assess and rate themselves regarding improvement in understanding about communication skills and bioethics as shown in Table 1.

RESULTS

A total of 102 undergraduate medical students participated in the workshop. A mixed method sequential design was employed to capture the best of both quantitative and qualitative approaches to understand the relationship among the various variables (curricular content e.g. communication skills, instructional strategy, and outcome) and to have further insight in the competence of communication skills Data was generated by the survey questionnaires. Statistical Package for Social Sciences (SPSS) version 17 Computer Software Programme was used for quantitative data analysis to calculate frequencies and percentages. Qualitative data was analyzed with content analysis after identifying themes (breaking bad news, informed consent, confidentiality and end of life care) and trends from the data.

Eighty nine percent of students attending the workshop filled the Retrospective Pre-Post Form. They were requested to rate their communication skills and understanding of bioethics before and after the workshop by asking standard questions. There were two open ended questions regarding

their feedback and suggestions for improvements. This survey showed a marked increase in understanding of effective communication skills and bioethics. Results of the paired T-Test revealed an increased awareness of the importance of communication skills and ethics among the students with P Values <0.001 for all dimensions measured (as shown in table 2). Majority of the students (81%) rated the workshop as useful and beneficial and scored themselves better after attending the workshop (as shown in figure 1). The workshop succeeded in creating awareness among participants of their difficulties in communication skills, identifying common ethical issues and the need to improve as seen in their written feedbacks:

“It was a very good experience, which helped build my communication skills”

“It made me crazy and I want to find out more about some of the topics on ethics we discussed”

“I will now make a conscientious effort to learn to communicate effectively with peers and patients”

“I can change my attitude now as I liked to avoid discussion and prefer to be alone as I am not sure how to get along with others.”

“.....I realized the need to improve my communication skills and bioethics as I had been so casual in dealing with patients.....”

The role play of students on various topics was excellent and was assessed by three senior faculty members independently on a specified format. After finalizing the results of presentations the batch with minimum score was 42 out of 63 and

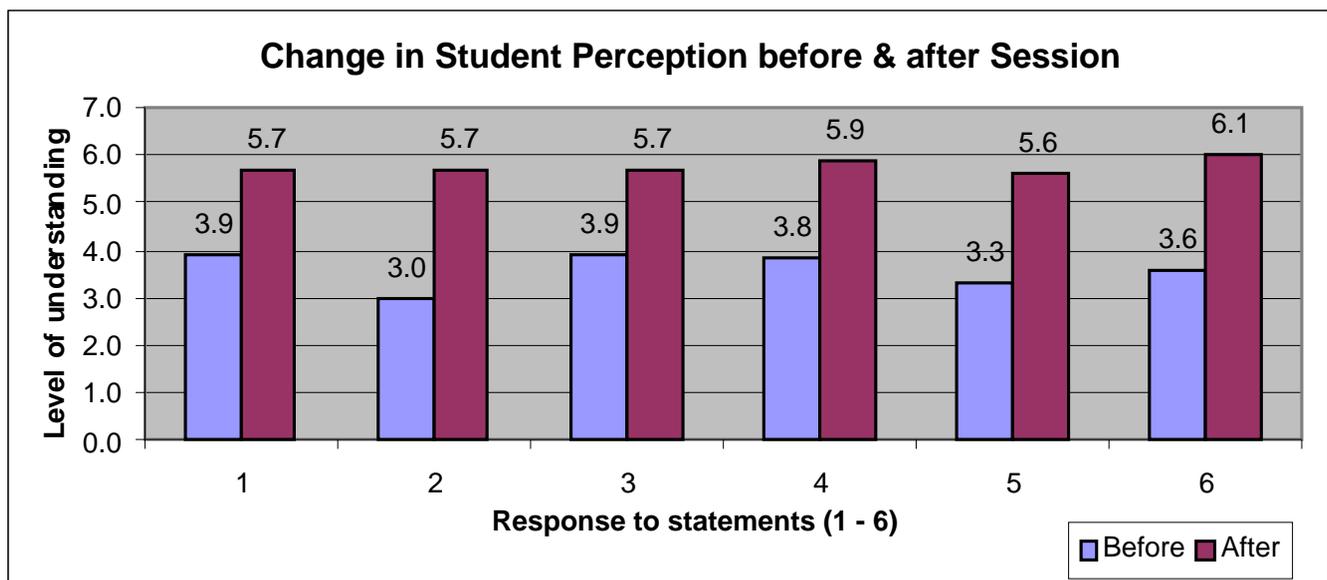


Figure 1: Changes in student's perception of their communication skills and understanding of Bioethics pre and post workshop

batch with maximum score was 57 out of 63.

In general, the workshop was well accepted by the students and teaching faculty. It was also realized that these activities should be continuously incorporated into the students learning to enrich and strengthen their communication skills. The facilitators also enjoyed the workshop as they had an opportunity to put their knowledge into practice and critically re-evaluate their roles as effective facilitators.

DISCUSSION

This study has highlighted the fact that it can be expected that improved training of communication skills will enhance patients and their attendants satisfaction. Future physicians and scientists must learn the principles of medicine and research in the broadening context of a biological, psychological, and social perspective at an earlier stage.⁸ Majority of medical schools in Pakistan are still lacking the teaching and introduction of communication skills and bioethics in curriculum.¹² Our study showed a great need and change in the learning attitude of communication skills among medical students. Similarly in a study done at Norway, inclusion of communication skills workshop in curriculum of medical school was found to be very useful for monitoring the change in behavior of young medical students while their stay in medical school along with making comparison between different medical schools which can improve and refine curricula and teaching methods in communication skills.⁹ In a study done by West and colleagues it was found that the three most useful topics for teaching bioethics education were how to cope with mistakes in clinical care, relationship with colleagues and admitting plus reporting medical mistakes as medical errors which can lead to subsequent distress and depression among health care professionals.¹⁰ Improved knowledge and change in behavior are not enough to bring any change in attitude in daily practice; rather practical training is also needed.¹¹ There is a constant need for preparing physicians and scientists of the highest ability who are sensitive to the humanistic aspects of health care. In a study done at University of Nottingham, UK in 2002, it was found that developing a new and reliable Communication Skills Attitude Scale (CSAS) for medical students markedly improved attitudes towards communication skills learning and had a great help for researchers to identify the need of a strong relationship between medical students' attitudes and their demographic and

education-related characteristics.¹²

Table 2. Pre-post evaluation workshop results and significance

Item	Pre-workshop score	Post-workshop score	p-value
Question 1	3.9	5.7	< 0.05
Question 2	3.0	5.7	< 0.05
Question 3	3.9	5.7	< 0.05
Question 4	3.8	5.9	< 0.05
Question 5	3.3	5.6	< 0.05
Question 6	3.3	6.1	< 0.05

In contrast to our study students rated themselves a little lower after finishing their communication skills course in a study done at Nottingham UK in 2003. This was because they realized that they were overconfident in their level of communication skills before the workshop and after learning so much detail rated them lower and showed a need to learn more about demographic characteristics: gender, language and ethnicity and ethical issues to improve their communication skills.¹³ In another study done in a medical school of Saudi Arabia, five recommendations were made to integrate ethics teaching in medical education.¹³ They advised assessment of students integrity and character on admission, teaching bioethics in clinical settings, inclusion of Islamic code of medical ethics in medical schools in Islamic world, evaluation of young graduates performance in ethics at the bedside by peers, nurses and patients and evidence-based assessment and continuous quality improvement.¹⁴ In another study done in Turkey, it was found that there is great need in of revision in undergraduate medical education, physician's working conditions and their mode of selection for residency training, and learning environment for a better professional values of today's physicians.¹⁵ Similarly another study done in USA or surgical residents showed an improvement in patient care after gaining knowledge of communication skills and bioethical issues.¹⁶ We used a small booklet containing 5 articles about various themes of common bioethical topics as it has been well established that provision of reading material during these workshops makes great impact on understanding and learning bioethics.¹⁷

This study has limited value due to small sample and response bias and its results can't be generalizable to medical students in other geographical regions. Students who responded to this survey may differ in attitudes from those who did not and the possibility of "social desirability"

bias in responses cannot be ruled out. Another limitation was the broad range of some of comments given on the survey by students in addition to quantitative data which helped to provide the student's views but does not uncover underlying factors that may have influenced their responses. Future studies are needed to assess other variables may influenced the process and outcome of bioethics education in curriculum.¹⁸

CONCLUSION

Communication skills teaching can be implemented in the undergraduate pre-clinical teaching particularly to teach about patient handling, discussing informed consent, problem solving discussion among colleagues and delivering bad news. It just needs structured case-based sessions which can result in an improvement in the self-assessed skills of medical students. Our study shows that communication skills workshops are effective method for teaching bioethics and communication skills and they change the perceptions of students.

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ASSESSMENT OF KNOWLEDGE ABOUT SCABIES AMONG DOCTORS OF A TERTIARY CARE HOSPITAL

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ABSTRACT

Objective

To determine the level of awareness about scabies among doctors.

Methodology

A descriptive cross-sectional study was conducted at Tertiary Care Hospital in Rawalpindi. Tool of research was a pre-tested close ended self-administered questionnaire that was distributed among 272 doctors after taking informed consent through convenient sampling. The data was entered in SPSS version 16 for descriptive analysis.

Results

A total of 272 doctors participated in the study 22.4% were not aware that scabies is contagious disease, 53% of doctors did not know that it is transmitted sexually and 23.9% were not aware Pregnant women with scabies can be treated. 22.8% of them did not know that treatment of scabies require 2-3 week time for full recovery.

Conclusion

There is a universal lack of awareness on the subject of different aspects of scabies among doctors.

Keywords:

Contagious disease, Scabies, STD

INTRODUCTION

Scabies is a contagious disease caused by invasion by *Sarcoptes scabiei* var. *hominis* (itch mite), leading to significant morbidity and mortality in the course of disease and often results in opportunistic bacterial infections. Scabies is one of the most ignored diseases, chiefly not present in the global agenda of health and its enormous morbidity of disease is mainly unobserved. We challenge that synchronized, hard work in international community can control this itch mite and it is achievable.¹ Prevalence of Scabies vary from 2.71 per 1000 to 46% in the current literature², its rate of infection in UK was 8.5%³ Study at Hyderabad

hospital showed patients belonging to rural or urban slums are facing multiple challenges one of the contagious disease prevalent is scabies 77.2% and also with low socio economic group 68.9% .study revealed that people in overcrowded households are at risk of 82% to develop scabies. The strong statistical association was poor hygiene due to scanty supply of water and over overloading of house holds.⁴ Scabies is a preventable disease and by identification of risk factors it can be easily controlled. Studies identified risk factors for the infestation are few that can be educated in highly prevalent areas for prevention they are its common symptoms like Itching in family, irregular bathing, occasional changing of attire, low education, sharing beds are significant risk factors for scabies.^{4,5,6} The incidence of scabies is coming from hospital base studies and its results cannot be taken as true picture of community. There are cyclical trends without any explanations. 22.7% cases are

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reported from Karachi more than any other contagious skin disease. Health service providers especially doctors are vital part of health systems. Treatment of scabies does not need hospitalization so they are mostly in contact of doctors not trained in dermatology.⁷ Crusted scabies is a type of scabies which is highly contagious and it presents with extreme parasite numbers. It can be seen predominantly in elderly individuals or in immunocompromised patients, especially in those who are suffering from HIV or in those who are under immunosuppressant drugs e.g. patients suffering from different types of cancers.⁸ Scabies treatment requires killing of the scabies mites, treating the infested person and anyone who has been in close contact with the infested person, by laundering the clothes and bed sheets. Three lotions often used to treat an infestation are permethrin, lindane, and sulfur. Even after successful treatment, a person is not immune to scabies and can become reinvested if exposed to the mite's again.⁹⁻¹⁰ The assessment of knowledge about scabies is thus important as it is highly contagious but also preventable and is easy to diagnose. So far one study have been conducted in country to document the facts about the knowledge of practicing doctors. Present study will help to determine the level of knowledge among doctors at tertiary care hospital in Rawalpindi. Analysis will help to plan the future strategies to prevent high morbidity associated with infection.

OBJECTIVES

- To find awareness of doctors about scabies
- To find gaps in knowledge of scabies.

MATERIALS & METHODOLOGY

Study design: A cross sectional study

Setting: A tertiary care hospital in Rawalpindi

Sample size: 272

Sampling technique: Convenient non probability technique .

Inclusion criteria: doctors willing to participate and working in tertiary care hospital in Rawalpindi.

Exclusion criteria: doctors not willing to participate

and working in tertiary care hospital outside Rawalpindi.

Ethical approval: Ethical approval committee FUI.

Duration of study: January to June 2014

Sample size calculation was done by epi info with 95% confidence interval and 5% probability of error.

Software: SPSS version 17 was used for descriptive analysis .

METHODS

Tertiary Care Hospital at Rawalpindi was selected for this cross-sectional Descriptive study. After taking informed consent, the research proforma was distributed among the doctors working in tertiary care hospital in Rawalpindi. Next day the proformas were collected .They were cleaned and the data was coded and entered and descriptive analysis was done in SPSS software.

RESULTS

77.6% of doctors knew that scabies is a contact disease as shown in table no I 1 and about 46.7% knew about its sexual transmission out of 211as shown in table no II.65.4 %of doctors said that scabies is diagnosed through skin biopsy although it is diagnosed on skin scrapping. About 55.9% of doctors said it can be transmitted through pets while human scabies cannot be transmitted through pets as shown in table no IV.

Results

	Frequency	Percent
Yes	211	77.6
No	61	22.4
Total	272	100.0

	Frequency	Percent
Yes	127	46.7
No	145	53.3
Total	272	100.0

	Frequency	Percent
Yes	152	55.9
No	120	44.1
Total	272	100.0

	Frequency	Percent
Yes	178	65.4
No	94	34.6
Total	272	100.0

DISCUSSION

Dermatology is an allied of medicine field and insufficient research work has been done, due to lack of awareness by medical professionals and is ignored in Pakistan.⁷ To the best of our knowledge, this is the first study of its kind among doctors of Rawalpindi in Pakistan. And one of its kinds was done in Karachi with which we are comparing our results. Scabies is a condition that may engage the entire body^{11,12} and its management involves the medical and paramedical staffs working in all disciplines of medicine.¹³ The current study revealed that considerable numbers of doctors have sufficient awareness that scabies is contact disease; they knew the diagnostic tests and symptoms of disease. However, its modes of spread were not clear almost half of doctors didn't know it is a venereal disease and that human scabies cannot be transmitted from pets.

Another aspect was that they were not aware was about treatment of pregnant females is not contraindicated.

Our results are comparable to the study done in Karachi it is also giving almost same results that is lack of satisfactory level of awareness among GPs.⁷

A few limitations of our study are to be to be recognized. It is limited by design i.e. cross-sectional results may differ if repeated on other doctors in different institutions. We advocate in the result of this study to improve teaching and learning techniques in medical education and to inculcate self-directed learning so that lifelong results can be achieved. Properly trained and Skilled doctors are required to prevent communicable diseases. Health education and specific protection about scabies is required knowledge for the patients and it can be easily improved to community mobilization and community involvement especially among high risk group people through trained doctors. Its control is also possible by screening i.e. Early case detection.

This study shows an strong need of regular training programs and refresher courses especially for highly prevalent and preventable disease like scabies to reduce the burden of disease and ongoing medical education for doctors.

CONCLUSION

There is a general lack of knowledge doctors regarding various aspects of scabies therefore training classes should be held at the different intervals after formal graduation to improve their practices.

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CAN NASAL SURGERY BE CARRIED OUT IN COMBINATION WITH OROPHARYNGEAL SURGERY?

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ABSTRACT

Purpose of study:

To evaluate the effects of combined nasal and oropharyngeal surgery on post operative morbidity and post tonsillectomy secondary hemorrhage.

Design:

Observational cohort study

Methods:

The study was conducted in three Military tertiary referral centers from June 2010 to Sept 2013. Adult patients who underwent tonsillectomy or uvulopharyngopalatoplasty alone or in combination of nasal surgery were included in the study. Post operative morbidity in terms of hospital stay and the rate of post tonsillectomy hemorrhage was recorded in all patients and an investigation was conducted to determine whether synchronous nasal surgery altered this rate.

Results:

A total of 2020 patients were included in this study, with a rate of post tonsillectomy hemorrhage of 5.5%. A total of 408 patients underwent synchronous nasal surgery. No significant difference was found between the hospital stay and hemorrhage rate in patients who underwent tonsillectomy or UPPP alone and those who underwent synchronous nasal surgery (6.0% and 3.9%, respectively; $P = .30$). When these patients were further divided into those undergoing UPPP and those undergoing synchronous nasal surgery, no significant difference in hemorrhage rate was found (6.2% and 2.0%, respectively; $P = .06$).

Conclusions:

Combining the nasal surgical procedures with oropharyngeal surgery does not appear to increase the morbidity in terms of hospital stay and rate of postoperative complications in patients who undergo tonsillectomy alone or in combination with nasal surgery. So the surgeons can perform synchronous surgical procedures instead of staging surgical procedures. The advantage is evident that the patient requires only one anesthetic and one postoperative course without any additional risks.

Keywords:

Combined nasal and oropharyngeal surgery, Post tonsillectomy hemorrhage, Tonsillectomy, UPPP (uvulopalatopharyngoplasty)

INTRODUCTION

In practice otolaryngologists commonly evaluate patients who reported with concomitant oropharyngeal and nasal complaints. Sometimes

the chief complaints are distinct in the case of recurrent tonsillitis and nasal obstruction, whereas other times they are related, as in cases of obstructive sleep apnea. Obstructive sleep apnea is present in 1% to 2% of the general population, has undeniably been in the foreground of medicine in not only the specialties of otolaryngology, pulmonology, and neurology but also the primary care arena. The main focus has been on the long-

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term effects of obstructive sleep apnea, and recent literature has demonstrated a 2-fold increase in stroke and death in patients with obstructive sleep apnea, even when adjusted for weight, blood pressure, and smoking. Surgical management for obstructive sleep apnea has been debated in the past. One of the hotly debated topics is whether oropharyngeal and nasal surgery should be staged or performed in a synchronous manner. Supporters of synchronous surgery cite a decreased number of procedures under general anesthesia, shorter hospital stays, lower cost, and shorter postoperative recovery time, whereas their adversaries cite increased morbidity, specifically pain, post tonsillectomy hemorrhage, and oxygen desaturation. The increased morbidity, presumably secondary to nasal packing, often mandates admission to the critical care unit or a monitored ward with continuous pulse oximetry.^{3,4}

It has been the practice at our institutions not to perform synchronous oropharyngeal and nasal surgery of our patients. To formally address this variable, we performed a prospective study to know any potential complications in combining oropharyngeal surgery with nasal surgery. The study started in 2010 and ended in 2013.

METHODS

All adult patients, 18 years or older who were suffering from chronic tonsillitis, reduced dimensions of oropharynx causing sleep apnea syndrome and nasal problems requiring surgical treatment were included in the study. Patients suffering from malignancy of oropharynx and nasal cavity were excluded from the study. Patients were divided into two main groups; first group included patients going through UPPP or tonsillectomy alone whereas second group comprised of those patients who went through synchronous nasal surgery. First group was further divided into two sub groups; patients going through UPPP alone (n = 580) and patients going through UPPP along with synchronous nasal surgery (n = 302). Likewise second group was further divided into two sub groups; patients going through tonsillectomy alone (n = 1032) and patients going through tonsillectomy along with synchronous nasal surgery (n = 106). A total of 2020 cases were included in the study.

The following information was collected on the cohort: age, sex, preoperative diagnosis, surgical procedure(s) performed, hospital stay and number of visits within 15 days of the surgery, and reason for visit(s). The patients were then grouped according to whether synchronous nasal surgery was performed and whether they underwent tonsillectomy alone or UPPP. Post tonsillectomy or UPPP hemorrhage was considered significant only if it required intervention for control of the hemorrhage. Intervention was defined as either removal of the clot and electrocautery under local anesthesia or a return to the operating theater for control of the hemorrhage. Patients in whom no clot or hemorrhage was visualized were not included in the total number of hemorrhages. Patients who hemorrhaged multiple times were counted as having one hemorrhage event. Data was entered and processed with SPSS v.22. The 2 method was used to determine statistical significance.

RESULTS

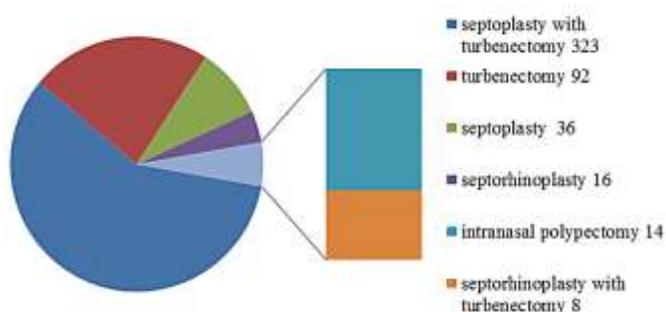
The final sample size was 2020 patients. Patient ages ranged from 18 to 60 years, with a mean of 25 years. The study group consisted of more men than women (1244 and 776, respectively). A total of 112 patients (5.5%) presented with postoperative hemorrhage that necessitated intervention. Patients who had multiple hemorrhage events were counted once; none of these patients had undergone synchronous nasal surgery. Thirty four patients required returns to the operating room to control the hemorrhage. Post tonsillectomy hemorrhages occurred between days 1 and 15 postoperatively, with a median of 7 days. Mean hospital stay remained 4 days.

Tonsillectomies were performed for the following diagnoses: recurrent tonsillitis (45.8%), obstructive sleep apnea (22.5%), snoring (21.8%), tonsil hypertrophy or asymmetry (5.2%), or a history of peritonsillar abscess (4.7%) (Table 1). Nasal surgical procedures performed in this study included the following: septoplasty, turbinectomy, septorhinoplasty and intranasal polypectomy. (Chart 1). In looking at the study groups, we noted no additional adverse effects of synchronous nasal surgery.

Table 1: Preoperative diagnosis for tonsillectomy or UPPP with tonsillectomy

Diagnosis	Patients, No. (%) (N=2020)
Recurrent or chronic tonsillitis	926 (45.8)
Obstructive sleep apnea	454 (22.5)
Snoring	440 (21.8)
Tonsil hypertrophy or asymmetry	106 (5.2)
Peritonsillar abscess	94 (4.7)

A total of 1612 patients underwent tonsillectomy or UPPP alone, and 408 patients underwent tonsillectomy or UPPP with synchronous nasal surgery (Table 2). No significant difference was found in post tonsillectomy hemorrhage in patients who underwent tonsillectomy or UPPP alone when compared with those patients who underwent synchronous nasal surgery (6.0% and 3.9%, respectively; $P=0.30$).

**Figure 1. Number of Nasal surgical procedures performed**

A total of 580 patients underwent UPPP and 302 patients underwent UPPP with synchronous nasal surgery. No significant difference was found in postoperative hemorrhage between patients who underwent UPPP and patients who underwent UPPP with synchronous nasal surgery (6.2% and 2.0%, respectively; $P = .06$). There were 1032 patients who underwent tonsillectomy alone and 106 patients who underwent synchronous nasal surgery with tonsillectomy. No significant difference was found in post tonsillectomy hemorrhage between patients who underwent tonsillectomy alone and those who underwent tonsillectomy with synchronous nasal surgery (5.8% and 9.8%, respectively; $P = .40$).

Table 2. Postoperative hemorrhage rates in synchronous nasal surgery and UPPP or tonsillectomy

Group	Synchronous surgery	No synchronous surgery	total	P value
UPPP	6/302 (2.0)	36/580 (6.2)	42/882(4.8)	.06
Tonsillectomy	10/106 (9.4)	60/1032(5.8)	70/1138(6.2)	.40
Both groups	16/408 (3.9)	96/1612(6.0)	112/2020(5.5)	.30

DISCUSSION

This observational cohort study was carried out in three military tertiary care hospitals and the results were then compiled and compared. The patients were divided in two groups of unequal number because the procedures carried out were different in the subgroups. Tonsillectomy is one of the surgical procedures most commonly performed by otolaryngologists, and thus multiple studies have been dedicated to the identification of preoperative risk factors, the modification of surgical technique, and the alteration of postoperative care in an attempt to decrease post tonsillectomy hemorrhage. Despite these efforts, post tonsillectomy hemorrhage remains one of the most common complications. Post tonsillectomy hemorrhage is defined as primary if it occurs less than 24 hours postoperatively or secondary if it occurs greater than 24 hours postoperatively. Most commonly this occurs 5 to 10 days after surgery.⁵ The adult post tonsillectomy hemorrhage rate in the literature ranges from 1.5% to 18%, with most in agreement on a rate between 3% and 6%.⁶⁻¹³ Less than half these cases require returns to the operating room,² and death secondary to postoperative hemorrhage is rare at 0.007%.⁵ Although the percentage of post tonsillectomy hemorrhage is low, it can be traumatic for the patient who undergoes cauterization under local anesthesia or the patient who receives a subsequent general anesthetic.

At our institutions, patients with post tonsillectomy hemorrhage undergo attempted suctioning of a blood clot and cauterization under local anesthetic before being transferred to the operation theater. We believe this algorithm is appropriate in adult patients because it saves the need for the patient to receive another general anesthetic. This approach gave us an overall hemorrhage rate of 5.5% for tonsillectomy or UPPP alone, which is within the

expected range and comparable to the rate of 4% achieved by the previous synchronous nasal surgery study.³

Our study failed to demonstrate any significant difference in the postoperative hemorrhage rate and hospital stay of patients who undergo synchronous nasal surgery. In fact, our hemorrhage rate was lower with synchronous nasal surgery. Our post tonsillectomy hemorrhage rate in patients who underwent synchronous nasal surgery was 3.9%. This finding is in contrast to the hemorrhage rate of 12.7% reported by another study.³ We believe our nasal surgical procedures are comparable because 78% of their nasal surgical procedures were composed of septoplasty or some form of turbinectomy, whereas our study was mainly composed of these two nasal surgical procedures.

Questions then remain as to why our hemorrhage rate was lower than that in the above-mentioned study by Murray et al and why our patients who underwent synchronous surgery had a lower rate of hemorrhage compared with patients who did not undergo synchronous surgery.³ By convention, a patient who undergoes synchronous nasal surgery should have a higher post tonsillectomy hemorrhage rate. Nasal packing increases mouth breathing, which further exposes the mucosa and vessels, which may lead to increased hemorrhage.^{3,4} Also, increased pain from synchronous surgery may decrease the oral intake of the patient, which would further desiccate the mucosa.^{3,4} Despite these principles, our patients who underwent synchronous surgery had less postoperative hemorrhage. We believe this result may be because we do not pack the nose after septoplasty, which thus enables the patient to breathe through his/her nose. We also promote copious nasal irrigation that starts the night immediately after surgery.

This technique not only maintains the patency of the nasal splint but also coats the exposed pharyngeal mucosa. However, we believe that the main difference in our post tonsillectomy hemorrhage rate compared with that in the study by Murray et al is most likely owing to sample size. Our sample size of 408 more than doubled the sample size of the original study, of 71 patients undergoing synchronous nasal surgery.³ Because of this fact, we believe our data better approximate the true risk of

the performance of synchronous nasal surgery.

Although continuous positive airway pressure is an efficacious treatment for patients with obstructive sleep apnea, long-term compliance rates are shown to be 60% to 70%, which makes surgery a viable option in patients with anatomic obstructions amenable to surgical intervention.¹⁴ Obstruction can occur at any of the following locations: nasal passage, oropharynx or soft palate, and hypopharynx or tongue base.⁴ Surgical intervention often begins with tonsillectomy or UPPPT; however, use of each of these procedures has been shown to improve or eliminate obstructive sleep apnea in only 41% to 66% of patients.¹⁴⁻¹⁸ Failures of UPPP are mostly secondary to poor patient selection as demonstrated by Friedman et al¹⁹. But can also be owing to scarring and poor surgical technique. Patients who Friedman et al classified as having stage 1 or 2 conditions have failure rates of 19.4% and 62.1%, respectively, and thus will often ultimately require another surgical procedure or continuous positive airway pressure.¹⁹ The addressing of the nasal obstruction increases the compliance of continuous positive airway pressure. Furthermore, Sériès et al showed that alleviation of nasal obstruction in patients with normal cephalometric measurements corrected mild sleep apnea.²⁰ Most otolaryngologists agree that addressing nasal obstruction is important in the treatment of patients with obstructive sleep apnea.¹⁷⁻²⁰

CONCLUSION

It has been the practice at our institution to perform synchronous nasal surgical procedures if clinically indicated. The belief that synchronous nasal surgery increases the post operative rate of hemorrhage in oropharyngeal surgeries is not correct. Further studies need to be conducted to assess morbidity and patient satisfaction after concomitant nasal and pharyngeal surgery vs pharyngeal surgery alone. On the basis of these findings, we believe that a concern for post tonsillectomy hemorrhage should not be a deterrent to the performance of synchronous procedures.

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FREQUENCY OF OBESITY AMONG TEENAGERS

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ABSTRACT

Objectives:

To find out the frequency of obesity in teenagers by measuring their Body Mass Index (BMI) and to elucidate the knowledge, attitudes and practices of Islamabad/Rawalpindi's teenagers regarding healthy eating, physical activity and lifestyle.

Methodology:

Cross sectional survey was done among 200 students of age between 13-19years, in different school, colleges and universities of Rawalpindi/Islamabad from January 2014 to June 2014. Data was collected through structured questionnaire related to their physical activity and diet plan through Purposive Convenient Sampling and analyzed through SPSS 20.

Results:

According to the data analyzed results shows that 35% were underweight, 51% were normal, 12% were overweight and 2% were obese. Results also showed that 61.5% eat junk food most often, 28% eat fruits and vegetables, 9.5% eat dairy products and 1% eats other foods. Teenagers of age group 18-19 years had active lifestyle with normal BMI and participated in physical activities almost daily.

Conclusion: Based on the findings, the current study suggests that increase in intake of fast foods could have a greater influence on the frequency of overweight or obesity among teenagers. But more physical activity incorporated into daily life and active lifestyle of teenager's leads to 'normal' BMI. As participation in physical activities and active lifestyle cause greater food consumption and normal BMI

Keywords:

BMI, Obesity, Teenagers, Physical activity, Lifestyle, Diet

INTRODUCTION

Teenager obesity is becoming a challenging problem throughout the world, including Pakistan.¹ Teenagers lie between age 13 and 19 and can be considered the transitional stage from childhood to adulthood.² Obesity is among the easiest medical conditions to recognize but most difficult to treat.³ Any body movement that burns calories, whether it's for effort or fun, daily tasks, or the daily commute refers as Physical Activity.⁴ Low Participation in Physical activity increase in caloric and fat intake, big-portions of food, fast-food

meals, excessive sugar intake by soft drink some of the main reason leading to obesity⁵ Sedentary behaviors like watching television, using other electronic media, playing computer games, and unhealthy eating habits are major cause of obesity among teenager. Teens are consuming very high fat foods like chips, fries, burgers and fizzy drinks.⁶ Obese teenagers are at risk for a number of conditions, including: psychological problems, exercise intolerance, breathing difficulties musculoskeletal disorders, they may face constant stares, comments and whispering that can interfere with living a normal life. They may have depression and low self-esteem.⁷ Those who were overweight were twice as likely as those with a healthy weight to have gallstones. Usually All children's are followed by Parents they tend to develop the habits which are present in their

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parents. So parents have to play a better role in avoiding the obesity problem by guiding them to have healthy dietary habits and do regular exercise.⁸

The increase in childhood obesity over the past several decades, together with the associated health problems and costs, is raising critical concern among health care professionals, policy experts, children's advocates, and parents. According to Patricia Anderson and Kristin Butcher document those children who eat more "empty calories" and expend fewer calories through physical activity are more likely to be obese than other children. Next it was ask found that what has changed in teenager's environment over the past three decades to upset this energy balance equation. In particular, it was examined that changes in the food market, in the built environment, in schools and child care settings, and in the role of parents - paying attention to the timing of these changes were also the main causes.

Among the changes that affect teenager's energy intake are the increasing availability of energy-dense, high-calorie foods and drinks through colleges. Changes in the family, particularly an increase in dual-career or single-parent working families, may also have increased demand for food away from home or pre-prepared foods. A host of factors have also contributed to reductions in energy expenditure. In particular, teenagers today seem less likely to walk to colleges and to be traveling more in cars than they were during the early 1970s, perhaps because of changes in the built environment. Finally, teenagers spend more time viewing television and using computers.

Anderson and Butcher find no one factor that has led to increases in teenager's obesity. Rather, many complementary changes have simultaneously increased teenager's energy intake and decreased their energy expenditure. The challenge in formulating policies to address teenager's obesity is to learn how best to change the environment that affects teenager's energy balance.⁹

METHODOLOGY

Study Design

Cross sectional study was conducted.

Sample Size

The Sample Size chosen was 200 students between ages 13-19 years. Data was collected from different schools of Rawalpindi/Islamabad

Sampling Technique:

Convenient non-probability sampling technique

Data Collection Technique:

Data was collected through a developed structured questionnaire including 15 questions.

Questions regarding diet, physical activity participation, weight & height were given.

Study Variables

Weight, Height, Diet, Participation in Physical activities, Gender and Age

Study Duration

6 months

Data analysis

Data was analyzed through SPSS 20.

RESULTS

Out of 200 teenagers, 70 (35%) were underweight (BMI less than 18.5), 102 (51%) were normal weight (BMI 18.5-24.9), 24 (12%) were overweight (BMI more than 25) and 4 (2%) were obese (BMI more than 30).

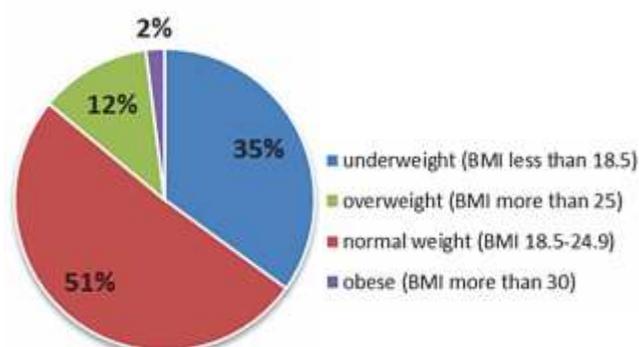


Figure I: Distribution of BMI among teenagers

When questioned about foods snacked most often, as shown in table fig 2 and pie graph 2, 123 out of 200 teenagers eat junk food, 56 eat fruits and vegetables, 19 eat dairy products and 2 take other foods.

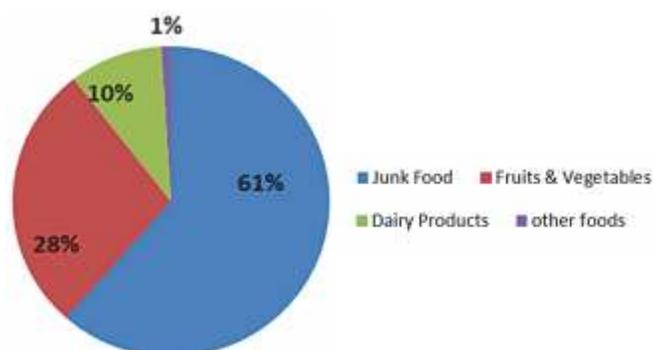


Figure II: Food consumed by teenagers

Cross tabulation of “Body Mass Index × Eating Frequency” (Table I) showed that teenagers with BMI 18.5-24.9 mostly eat after every 6 hours, teenagers with BMI more than 25 eat after every 2 hours.

Table 1: Body Mass Index × Eating Frequency

Body mass index	Eating Frequency				Total
	2 hrs.	4 hrs.	6 hrs.	8 hrs.	
less than 18.5	11	24	24	11	70
18.5-24.9	17	33	38	14	102
more than 25	8	4	9	3	24
more than 30	1	2	0	1	4
Total	37	63	71	29	200

Cross tabulation as shown in table 2 showed that teenagers with BMI 18.5-24.9 participated in physical activities daily, whereas teenagers with BMI less than 18.5 participated in physical activities once a week or only on sports day.

Table 2: “Body Mass Index × Physical Activities Participation”

Body mass index	Physical Activities Participation				Total
	Once a week	Daily	on sports day	Never	
less than 18.5	19	17	19	15	70
18.5-24.9	30	28	24	20	102
more than 25	7	8	1	8	24
more than 30	0	3	0	1	4
Total	56	56	44	44	200

DISCUSSION

The increase of obese teenagers is due to the expansion of machinery, increase in snacks and portion size of meals, and the decrease in the physical activity of children. It has also been evidenced in a survey that daily macronutrient intake by Japanese children showed that the cholesterol concentrations in 10–19-y-old males and females increased year after year. The factors that contribute to the health problems facing today's Japanese children include their sedentary lifestyle, irregular intake of meals (especially skipping breakfast), and the increasing daily ratio of fat to total energy intake.¹⁰

If teenagers were more mobile and less sedentary,

the rate of obesity would decrease. As according to a study the frequency of obesity were lower in children for whom high physical activity was reported.¹¹ Therefore teenagers have to put down the electronic devices and spend more time outside playing or exploring other options of physical activity. Researches also show that teenagers living in the urban area with high SES were at risk for being overweight and obese than children living in the urban area with lower SES and rural children.¹² Some studies in teens suggest that computer, video game, and Internet use are associated with excess weight.¹³

Obesity is the result of excess body fat. The different norms and definitions in Europe and the US is described and clarified. However, the

available methods for the direct measurement of body fat are not easily used in daily practice. For this reason, obesity is often assessed by means of indirect estimates of body fat, that is, anthropometrics. There are essentially six relevant levels, which could be involved in prevention of child and adolescent obesity: family (child, parents, siblings, etc.), schools, health professionals, government, industry and media. Evidence-based health promotion programs have to be given a high priority. Government should encourage media increase information about healthy nutrition and to avoid the marketing of unhealthy foods including sweet drinks, for example, in TV. Many different approaches of treatments of obesity have been investigated, including diet, exercise, behavioral therapy, surgery, and medication. None have been found to be effective enough as sole tools in teenagers. This has led to focus on multidisciplinary programs especially involving families. Behavioral cognitive therapy is effective in treating childhood obesity as is family therapy. Surgery and drug treatment cannot be recommended without additional research. Clinicians should consider the various factors that can influence body composition. It is important to know and to follow nutritional factors, energy intake and composition of the diet, nutrition and hormonal status, food preferences and behavior, and the influence of non-nutritional factors. We recommend that obesity should be the major priority both in the health care system, on the scientific level and for future political actions.¹⁴

All of the aforementioned studies show that problem of obesity in teenagers has grown considerably due to unhealthy food choices as teenagers have shifted away from healthy foods (such as fruits, vegetables, and whole grains) to a much greater reliance on fast food, lack of physical activity and sedentary lifestyle due to more time spent using computers and other electronic games.

CONCLUSION

Based on the findings, the current study suggests that increase in intake of fast foods could have a greater influence on the frequency of overweight or obesity among teenagers but due to more physical activity incorporated into daily life and active lifestyle of teenager's; the frequency of overweight and obesity was lower in teenagers, resulting in teenagers having a 'normal' BMI. As participation

in physical activities cause greater food consumption therefore leading to normal BMI.

Therefore, teenagers should be encouraged more to participate in physical activities and Dietary recommendations should also be carried out and more importance should be given on balanced diet and avoiding junk foods. Health education in schools should incorporate all the above-mentioned points in an understandable and appealing way in order to maximize its impact in the community.

RECOMMENDATIONS

- Further work should be done on topics related to obesity to obtain results with minimal biasness
- Researches should be done on frequency of obesity among adults and older people
- Sample size should be increased and work should also be done on co-morbidities related to obesity

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STRUDWICK TYPE SPONDYLOEPIPHYSEOMETAPHYSEAL DYSPLASIA A CASE REPORT WITH LITERATURE REVIEW

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ABSTRACT

Spondyloepimetaphyseal dysplasia is a type of bone dysplasia characterized by vertebral, epiphyseal and metaphyseal changes of varying severity. Severity of bone involvement differs and symptoms change according to the age of the patient. Patients with predominantly epiphyseal component will develop premature osteoarthritis of weight bearing joints. In this study radiographic findings of a 17 years old male patient diagnosed as strudwick type Spondyloepimetaphyseal dysplasia is reported who developed premature osteoarthritis of both knees.

Keywords:

Dysplasia, Epiphyses, Metaphyses, Skeletal disorder

INTRODUCTION

Spondyloepimetaphyseal dysplasia strudwick type was identified as a separate entity of SED congenita in 1982 by several authors (Anderson et al 1982, Bartsocan et al 1982).^{1,2} Both conditions certainly represent type II collagenopathies and are inherited in an autosomal dominant manner.⁴

CASE REPORT

A 17 years old male patient presented with short stature and pain both knee joints for last 6 to 7 years and was admitted in Medicine Department of Fauji Foundation hospital Rawalpindi. He was youngest of 6 siblings and was a full term baby delivered by normal spontaneous vaginal route and his birth weight was 3000 grams. Neither his parents nor other family members had any anomalies such as gait disturbance, short stature or kyphoscoliosis. All his siblings were married and had children. His main complaint was pain which was of moderate to severe intensity and was relieved by intake of analgesics only. General physical examination and systemic examination was unremarkable except that he had short stature and pectus excavatum. No

development of male voice was noted and secondary sexual characters were absent. His blood calcium, phosphorus and alkaline phosphatase were normal. There were no amino acids mucopolysaccharides in his urine analysis. However there was osteoporosis on DEXA scan.

Radiographic findings were shortening of femoral necks and coxa vara deformity with a bilateral symmetrical involvement. Widening and irregularity of proximal femoral metaphyses and high riding greater trochanters were noted on both sides. All long bones were short and under tubulated. All epiphyses at knee and hip joints were small, flattened and sclerotic with a disc shaped configuration. Distal epiphysis and metaphysis of ulna was absent on both sides. Distal metaphysis of radius on both sides was expanded markedly with bowing towards medial side. Metaphyses of all tubular bones including long bones were also expanded with islands of relative sclerosis. On chest x ray posteroanterior view widening of anterior ribs and scalloping is seen.

DISCUSSION

Spondyloepimetaphyseal dysplasia is a skeletal dysplasia characterized by involvement of metaphyses, epiphyses of long bones and vertebral column. 1 SEMD type strudwick was identified as separate entity in 1982 by several authors

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(Anderson et al and Bartsocas et al).^{1,2} Spranger and Maroteaux (1982 and 1983) questioned whether it should be considered a separate entity.³ Both conditions certainly represent type II collagenopathies and are inherited in an autosomal dominant manner.⁴

In infancy radiological findings of Spondyloepimetaphyseal dysplasia are similar to SED congenita. There is anisodisplasia with LV-1 being larger than LV-5. At this age vertebral bodies are oval but in childhood they become pear shaped with mild posterior constriction and rounded anterior borders. The ribs are short with small thoracic cage as in study.⁵ The long bones are short with very small or absent femoral necks. In this case report he had same presentation of short stature. There is delayed ossification of epiphyses at knee

and pubic rami at birth. There is also delayed ossification of capital femoral epiphysis and in childhood severe coxa vara deformity develops. There are high riding greater trochanters. The acetabular roofs are horizontal but shape of the iliac bones is normal.¹

From the age of four years the typical metaphyseal changes of Spondyloepimetaphyseal dysplasia type strudwick develop.⁴ Prime features of metaphyseal involvement include flocculated and dappled fragmentation of metaphyses of all long bones which are expanded with islands of relative sclerosis as appreciated in this case. Typically the ulna is more severely affected than radius and fibula more than tibia. Deforming pseudoarthrosis can develop resulting in radial varus deformity. Kyphoscoliosis can develop as can be seen in this case also (Fig I). Cervical kyphosis and instability



Figure I: Metaphyses with expansion and patchy sclerosis (FFH RWP)



Figure II: Metaphyses with expansion and patchy sclerosis (FFH RWP)

may develop because of hypoplastic vertebral body of CV-3 or hypoplastic odontoid peg. Premature Secondary osteoarthritis may develop in weight bearing joints⁵ also observed in this case(Fig II).

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COLLAGENOUS COLITIS: A CASE REPORT

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INTRODUCTION

Chronic diarrhea is among the common symptoms with which patients are presenting in out patient department. Chronic diarrhea may be defined as changes in intestinal transit lasting four or more weeks characterized by reduced stool consistency, increased daily evacuation frequency and a daily stool weight of >200 g. The cause may be infectious, endocrine-metabolic, neoplastic, functional or drug related. Thus, the diagnosis of chronic diarrhea is ample and complex. In patients with chronic diarrhea, colonoscopy may identify inflammatory causes or some occult disease, and also can show a normal mucosa.¹ Serial biopsies of intestinal mucosa can be useful for a differential diagnosis, and to modify the treatment.² Here we are going to present a middle age woman case presented to us with diarrhea and normal colonoscopy.

Keywords:

Daily evacuation frequency, Endocrine-metabolic, Colonoscopy

Forty Five years of female Mrs. XYZ resident of daska presented to us in OPD with presenting complaint of diarrhea on and off for 8 years. According to patient, she was in her normal state of health about 8 years back when started having loose stools on and off for 8 years ago, 8-10 episodes per day, small in amount, watery in consistency, easy to flush, containing no mucus or blood in it. No history of nocturnal episodes and tenesmus. There was no history of association with food intake. No associated symptoms of fever, abdominal pain, vomiting, anorexia or weight loss. No history of nausea, heart burn, dysphagia, hematemesis, melaena or jaundice. Rest of systemic inquiry and menstrual history were unremarkable. No other significant past medical or surgical history. She was Treated with IV metronidazole at multiple times during past 8 years with temporary relief. No history of allergy to any drug. She was not addicted, had never travelled abroad or tropical areas, married and has 4 children. Family history was

unremarkable. On examination she was mildly dehydrated. Rest of examination was normal. Investigations revealed normal complete blood picture with ESR of 24. Liver functions, renal functions, serum electrolytes, coagulation profile, ultrasound abdomen were normal. Thyroid function tests were also normal. Rest of investigations included viral markers, stool R/E, Stool C/S, anti endomysial Antibodies both IgG, IgA; anti tissue transglutaminase Antibodies, tumour markers included CEA levels, CA-125 were also normal. She was discharged with working diagnosis of irritable bowel syndrome and given loperamide 2mg as per required and amitriptyline 50mg at bedtime. She again visited outpatient department after 14 days with no improvement in her symptoms.

CT scan abdomen with contrast was performed and turned out to be unremarkable. Colonoscopy was done and it revealed normal mucosa but multiple biopsies were taken and sent for histopathology. Histopathology showed colonic mucosa lined by simple columnar epithelial cells with chronic inflammatory cells lymphocytes and plasma cells infiltrating lamina propria. However there was a collagen layer in subepithelial region suggestive of

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collagenous colitis. So the patient was diagnosed as a case of COLLAGENOUS COLITIS and was put on steroids tab prednisolone 0.5mg/kg/day. Follow up was made after 14 days. Her symptoms were completely settled. Steroids were further tapered to 10mg/day then 5mg/day with an interval of 14 days. She remained asymptomatic. Finally steroids were stopped but patient again presented in emergency department with profuse watery diarrhea. She was given methylprednisolone and fluids. Her symptoms settled. Currently she is asymptomatic on low dose steroid (tab prednisolone 5mg/day) and is being regularly followed up in OPD.



Figure I: Histopathology showing lamina propria is infiltrated with lymphocytes and collagen layer in subepithelial layer

DISCUSSION

Collagenous colitis is a subgroup of microscopic colitis. Microscopic colitis (MC), comprises collagenous colitis (CC) and lymphocytic colitis (LC).² Collagenous colitis (CC) is the most commonly known presentation of this disease and was first described in 1976.³ Collagenous and lymphocytic colitis are frequently diagnosed in elderly female patients.⁴

The pathophysiology of MC is still unclear, and the search for triggering factors and underlying dysfunctions in the immune system is still at an early stage. Although the etiology remains unclear, barrier dysfunction, increased numbers of intraepithelial T lymphocytes, and/or immune responses to luminal agents can cause dysregulated immune responses and chronic inflammation.² MC also shows associations with other autoimmune

diseases and with non-steroidal anti-inflammatory drugs,² although concomitant autoimmune disease are more common in CC than in LC patients.⁴

Collagenous mucosal inflammatory disease is a rare gastrointestinal disorder that typically involves intestinal mucosa.³ But there is growing evidence in adult literature that collagenous inflammatory mucosal disease is a more extensive pathologic process that concomitantly might involve several other gastrointestinal sites and not only the colon.^{5,6} Searching the literature revealed more than twenty-four reported patients with collagenous gastritis,³ more than nine cases of collagenous colitis,³ one with gastrocolonic involvement,⁷ and one with involvement of gastric, duodenal, and colonic mucosa.³

CC and LC share similar symptom pattern when involving intestinal mucosa.⁴ Clinical features include chronic watery diarrhea, abdominal pain, and weight loss.² as in our patient who presented to us with profuse watery diarrhea.

Since 1970, colonoscopy has been used to evaluate the large bowel and to screen colorectal disease, especially neoplasia and polyps. However, some patients with chronic diarrhea present a normal mucosa on colonoscopy. Same in our case in which colonoscopy revealed normal mucosa. In such cases, serial biopsies can provide the information required to establish a diagnosis and prescribe adequate treatment¹ so multiple biopsies of multiple sites were taken in patient and sent for histopathology.

In contrast to ulcerative colitis (UC), the colonic mucosa in MC is endoscopically normal or near-normal. Thus diagnosis of MC relies on typical histopathological features observed upon microscopic examination.² Chronic inflammation is seen in both CC and LC, including lymphocytic infiltration of the epithelium and lamina propria, and damaged, flattened, and detached epithelial cells with loss of mucin.³ In CC, a thickened subepithelial collagen layer is observed beneath the basal membrane, whereas the characteristic feature of LC is a more pronounced increase of intraepithelial lymphocytes.²

Data from the study showed that budesonide was significantly superior to placebo and to mesalamine and further supports the recommendation of the

current guidelines on the use of budesonide in CC.⁷ However, other forms of mesalamine may further be evaluated for this disease.⁷ Therefore corticosteroids, budesonide, and 5-ASA have been all successfully used in the treatment of collagenous inflammatory mucosal disease.⁸ Resolution varies and relapse frequently occurs.³ Our case responded to prednisolone initially but relapsed after discontinuation. Remission was then reestablished with the introduction of methylprednisolone, and then patient was maintained on low dose steroids. Those who have refractory microscopic colitis; they might required a colectomy while a more recent cases have responded to anti-TNF therapy.⁸ Thus the purpose of this case to be reported is that in patients with chronic diarrhea colonoscopy should be done not only to identify inflammatory causes or some occult disease, but to take serial biopsies in patients with a normal mucosa. Serial biopsies of intestinal mucosa can be useful for a differential diagnosis, and to modify the treatment.¹

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KINDLER SYNDROME: A CASE REPORT

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ABSTRACT

Kindler syndrome is a rare autosomal recessive genodermatosis characterized by congenital acral skin blistering, photosensitivity, progressive poikiloderma, and diffuse cutaneous atrophy. The differential diagnosis of Kindler syndrome include other congenital poikilodermatous and photosensitive conditions including Bloom syndrome, Cockayne syndrome, dyskeratosis congenita, epidermolysis bullosa, Rothmund-Thomson syndrome and xeroderma pigmentosum. We, herein report a classical case of Kindler syndrome.

Keywords:

Acral blistering, Kindler syndrome, Poikiloderma

INTRODUCTION

Kindler syndrome was first described in 1954 by Theresa Kindler.^{1,2} In 1971, Weary et al³ reported a similar disorder with acral blisters in infancy and childhood with widespread dermatitis and acral keratosis. The hallmark of Kindler syndrome is congenital blistering and photosensitivity which is combined with progressive poikiloderma and diffuse cutaneous atrophy. Both blistering and photosensitivity are known to begin in infancy or early childhood and improve significantly with age. The poikiloderma appears gradually and becomes more prominent later in life. Some patients develop sclerodermoid changes of the fingers and nails. Recurrent trauma-induced blister formation occurs primarily on hands and feet, which may prompt an incorrect diagnosis of epidermolysis bullosa. Photosensitivity can manifest as increased susceptibility to sunburn. Additionally, patients with Kindler syndrome frequently have poor dental hygiene and dental problems.¹

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CASE REPORT

A 57 year old married female presented to the OPD with complains of photosensitivity and blistering all over her body. She gave a history of acral blisters and photosensitivity since childhood with progressive development of poikiloderma, cutaneous atrophy and acral keratoses. She was born through spontaneous vaginal delivery at term and family history was negative for any skin disease in the family and paternal consanguinity. She had three children and all of them were normal. She belonged to lower socio-economic class.

According to the patient's mother her cutaneous blistering was noted on 2nd day of neonatal period predominantly over the acral areas. She developed spontaneous and trauma induced acral blisters which were more severe in infancy and childhood but gradually improved with age. Recurrent blistering episodes used to heal with scarring and blistering was still going on. She also gave history of photosensitivity and worsening of the condition in summers since childhood. Subsequently she developed hyper and hypo pigmentation, progressive skin atrophy and acral keratoses. She had been visiting many dermatologists over the years, the record of which was unavailable. At the time of presentation she was not taking any treatment.



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5

On physical examination the patient weighed 58kg with normal physical and mental development. Cutaneous examination revealed multiple hypo and hyperpigmented patches over face, neck, trunk and limbs (figure 1 and 2). In addition telangiectases were present on the trunk. The dorsae of hands and feet showed intact clear fluid filled blisters and atrophic scarring (Figure 3). There were hyperkeratotic plaques on the palmoplantar surfaces (Figure 4a, 4b). Fingers and face showed sclerodermatous changes. A clinical diagnosis of Kindler Syndrome was made.

Samples were taken for blood complete picture and urine analysis both of which were within the normal range and urine was negative for porphyrins. Histopathology showed flattened atrophic epidermis, sub-epidermal blister formation with moderate peri-vascular inflammatory infiltrate in the dermis. X ray hand showed narrowing of proximal and distal inter-phalangeal joints.

She was counselled about the nature of disease, course and long term complications. Symptomatic treatment was given for dryness and crusted plaques, with an advice to avoid trauma and excessive exposure to sunlight. She was also made aware of the feared complication of squamous cell carcinoma.

DISCUSSION

The mutation involves KIND1 (FERMT1) gene in Kindler syndrome⁴, a gene encoding the protein kindling 1 which is involved in the attachment of actin cytoskeleton to extra cellular matrix in basal keratinocytes.^{5,6,7}

Angelova-Fischer et al⁸ proposed diagnostic criteria for Kindler's syndrome, with major and minor criteria. The major criteria include acral blistering in early infancy, progressive poikiloderma, skin atrophy, abnormal photosensitivity, gingival hyperplasia and fragility. The minor criteria includes pseudosyndactyly and mucosal involvement (anal, esophageal and urethral stricture/ stenosis). The presence of four major criteria makes the diagnosis of KS certain. The presence of three major and two minor criteria makes the probable diagnosis and the presence of two major criteria and two minor criteria or associated symptoms makes the likely diagnosis. Our patient fulfilled four of major criteria features.

Additional cutaneous features include palmoplantar keratoderma and sclerodermatous changes on fingers and toes.¹¹ A number of other associated findings have been described in these patients like abnormal nail changes, leukoplakia, squamous carcinomas and skeletal deformities⁹. Variable presence of gingival fragility, periodontitis, dental caries, oral ulcers, leukokeratosis of buccal mucosa, anal or urethral stenosis⁹ has also been reported. Ophthalmic abnormalities reported are ectropion, keratoconjunctivitis, conjunctival scarring and corneal opacities.¹⁰

Histopathologic examination of atrophic skin lesions in patients with Kindler syndrome reveals nonspecific features of poikiloderma. The epidermis is flattened and atrophic, edema is present at the dermoepidermal junction, and the basal layer shows focal vacuolization with basal cell degeneration. Other histologic features include a prominence of dermal capillaries, pigmentary incontinence, and, possibly, perivascular lymphocytic infiltrate. Ultrastructural examination reveals marked basement membrane reduplication and variable levels of cleavage at dermo-epidermal junction.¹²

KS must be differentiated from other congenital blistering and photosensitive conditions. Acrokeratotic poikiloderma or Weary syndrome is a close differential diagnosis of KS and few cases have even been reported in literature as Kindler-Weary syndrome. However, there are many clinical differences between Kindler and Weary syndrome. Photosensitivity, a feature of KS, is usually absent in patients with Weary syndrome and blisters appear within the first 6 months of life in Weary syndrome as compared to Kindler syndrome, where blistering is seen soon after birth. Skin atrophy in Weary syndrome is not as remarkable as in KS. Similarly, an important differential diagnosis is epidermolysis bullosa, specially at or soon after the birth, although the development of photosensitivity and poikiloderma are useful features to delineate the disorder from various form of epidermolysis bullosa. However, the presence of scarring, mucosal ulceration and squamous cell carcinoma may make it difficult to differentiate from dystrophic epidermolysis bullosa. Syndrome must also be distinguished from other poikilodermatous conditions like Bloom syndrome and dyskeratosis

congenita, where recurrent blistering at trauma prone areas are not witnessed. Management of patients with Kindler's syndrome requires detailed education about photoprotection and close monitoring for mucosal complications like malignancies and esophageal, anal and urethral stenosis. Genetic counselling and family screening can be provided and mutation analysis can be done using PCR, if available and desired.

Management of patients with Kindler's syndrome requires detailed education about photoprotection and close monitoring for mucosal complications like malignancies and esophageal, anal and urethral stenosis. Genetic counselling and family screening can be provided and mutation analysis can be done using PCR, if available and desired.

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LETTER TO THE EDITOR

The views expressed in the letter are the personal opinions of the author and do not necessarily reflect the position of FUMJ on this matter.

“A GOOD DECISION IS BASED ON KNOWLEDGE AND NOT ON NUMBERS” (PLATO)

It seems that the regulatory authorities should concentrate on this quote to make decisions and critically evaluate their pros and cons. In a recent move by the Pakistan Medical and Dental Council (PM&DC), the proposal seeking increase in duration of the Bachelor of Dental Surgery (BDS) programme by one year has been accorded approval, despite the alleged opposition from the majority of the dental community. The decision has been taken under the sole pretext that USA and European countries do not recognize Pakistani BDS programme and making it a 5 year programme will enable students to go and work directly without having to go through local licensing examinations. This is strange; because that is not possible under any circumstances as local licensing or equivalency assessment is mandatory in every country. Interestingly, this decision comes at a time when the process of revising the BDS curriculum and syllabus as per international standards is still in its developmental stage under a high level committee comprising PM&DC and Higher Education Commission experts.

The primary mandate of the regulatory authorities of a country is to ensure that doctors of reasonable quality are produced to protect public from potential iatrogenesis. Therefore it is good to regulate qualified doctors and dentists, but at the same time shunning quacks in the interest of the public is also essential. Since majority of the dental colleges are in the private sector, this means that each student will now pay anywhere between half a million to 7 lac rupees annually (excluding living costs), which is an extra burden for parents. Reduced enrolments into BDS programme may be expected by the colleges as a result of adding one year to it. Similarly, females may prefer to go into other disciplines rather than pursuing BDS, which seemed to be a lucrative choice for them, given the social constraints that our women in health professions have to face. This decision might create more shortage of dentists in the country rather than increasing it, which is the need of the hour and that would in turn promote quackery in our society.

A proposal to include new and emerging subjects related to clinical and biological sciences in the BDS programme is also under consideration. This would obviously mean an increased requirement of qualified faculty in these subjects, which will further aggravate the already existing faculty shortage. Similarly, enhancing the number of seats in existing colleges should also be governed under the same rules of faculty requirements. There is also a need to understand that it is the programme training structure and quality as well as the bilateral ties of the countries which can accord international recognition and practice rights, and not a 5 year BDS or DDS programme.

Medical and dental education has undergone profound changes due to recent technological advancements and research worldwide. But the curriculum and teaching methodologies particularly in dental education in Pakistan are still based on conventional approaches. The tremendous expansion in knowledge could have been the right justification for increase in duration of the BDS programme. There should be a long-term prudent policy on quality of the existing and new colleges according to need of the country. While making the decision on 5 years BDS programme, local and national needs should precede international requirements.

Dr Muhammad Azhar Sheikh

Professor of oral and maxillofacial surgery

Dean

Foundation University College of Dentistry Islamabad

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The manuscript should be typed in double spacing on 8” x 11” white bond paper with one inch margin on both sides. There should be no more than 40 references in an Original Article and no more than 60 in a Review Article. The CD containing soft copy of the article should be sent with the manuscript.

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Tables and illustrations should be merged within the text of the paper, and legends to illustrations should be typed on the same sheet. Tables should be simple, and should supplement rather than duplicate information in the text; tables repeating information will be omitted. Each table should have a title and be typed in double space without horizontal and vertical lines on an 8 1/2” x 11” paper. Tables should be numbered consecutively with Roman numerals in the order they are mentioned in the text. Page number should be in the upper right corner. If

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System International Unit (SI Unit) measurements should be used. All drugs should be mentioned by their generic names. Trade names may however, be mentioned in brackets, if necessary.

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Abstracts of original article, comprising of upto 250 words, should be in structured format with following sub-headings.

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INTRODUCTION

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The author's comment on the results supported with contemporary references. Critical analysis of similar work done by other workers, its comparison with own work with possible reasons for any differences found should be included.

CONCLUSION

Conclusion should be provided under separate heading and highlight new aspects emerging from the study. It should be in accordance with the objectives.

REFERENCES

Reference should be numbered in the order in which they are cited in the text. At the end of the article, the full list of the references should give the names and initials of all authors (unless there are more than six when only the first six should be given followed by et al). The author's names are followed by the title of the article; title of the journal abbreviated according to the style of the Index Medicus (see "List of Journals Indexed", printed yearly in the January issue of Index Medicus); year volume and page number; e.g. Farrell RJ.

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