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Editorial

Dengue outbreak: A public health crisis in Bangladesh

Monowar Ahmad Tarafdar

During the few months of 2019, Bangladesh has been affected by major dengue fever outbreaks. Although this arbovirus has been a focus of many awareness campaigns, very little information is available about beliefs, attitudes and behaviors regarding vector-borne diseases among the population of Bangladesh.¹

Dengue fever is a re-emerging arboviral disease caused by dengue virus (DENV), an RNA virus of the family *Flaviviridae*; genus *Flavivirus*² transmitted to humans primarily via the bite of an infected mosquito (*Aedes* spp. mosquito); In Bangladesh, *Ae. aegypti* mosquito was responsible for several dengue fever outbreaks, *Ae. albopictus* also can transmit dengue.³

July-October 2019, the situation worsened with an increasing number of clusters in the country. Since the introduction of Dengue virus, DGHS have reactivated the dengue fever control vector plan, based on an integrated vector management strategy promoted by the World Health Organization (WHO) and applicable to all vector-borne diseases. This strategy includes different approaches combining an environmental management program aimed at reducing breeding sites, using insecticides safely, biological control using organisms that reduce target species, providing education, increasing public awareness and promoting personal protection.⁴

The active and persistent participation of the individuals and communities is a key factor in the achievement and sustainability of vector control programs, as the punctual interventions are generally ineffective at preventing outbreaks of vector borne diseases. One important target group for such programs is the young generation, who can become more easily involved in community-based vector-source reduction campaigns. In addition, participation at the individual level, such as use of insect repellent, mosquito netting or elimination of the indoor breeding sites, may also play an important role. Although mass dengue campaigns have increased public awareness of health risks related to dengue fever, most of the population still lack proper knowledge regarding breeding, resting and time preference of *Aedes* mosquitoes.⁵

It is obvious that importance of the public understanding of illnesses in the adoption of effective protective behaviors, much to be done on the value of education campaigns aiming to improve the lay comprehension of the diseases. They may be a useful pre-requisite for the programs encouraging community participation in vector control.

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Original article

Efficacy and Safety of Voriconazole in the treatment of resistant cases of DermatophytosisMd. Abdulla-Hel Kafi¹, Mohsena Akter², Rumana Khan³, Syed Shair Ahmed⁴, Md. Jonayed Hassan⁵,
Mohammad Shariful Hassan⁶**Abstract:**

This is a descriptive type of longitudinal study conducted among Hundred clinically diagnosed cases of dermatophytes attending at skin out patients department of Zainul Haque Sikder Women's Medical College, Bangladesh from August 2018 to August 2019 to observe the efficacy and safety of voriconazole among the resistant cases of dermatophytosis. Among 100 patients, 40 were males and 60 females between ages 20 and 65 years of all age group with clinical, mycological diagnosis of dermatophytosis. To find out antifungal resistance pattern as well as efficacy and Safety of Voriconazole among dermatophytes. (Skin, hair and nail samples were taken aseptically. All patients were resistant against present treatment options like: fluconazole, itraconazole & terbinafine etc.) All patients were treated with Voriconazole. Duration of treatment of each patient was 4 weeks. Resistance against fluconazole and terbinafine was most common, 85.33% and 58% respectively. 5% resistance against voriconazole was observed in this study. Resistance against fluconazole was noted among all species of dermatophytes, followed by terbinafine. Among 100 patients 80% was fully cure and rest of 15 % were partially cure with 5% resistant of Voriconazole which is seems to be more effective and safer against dermatophytosis.

Key words: Resistant Dermatophytes, Antifungal, Efficacy, Safety, Voriconazole**Introduction**

Dermatophytes are filamentous fungi that are able to digest and obtain nutrients from keratin, primarily a component of skin hair and nails. Cutaneous mycoses are mostly caused by keratinophilic filamentous fungi called dermatophytes and are classified into three genera: Trichophyton, Microsporum and Epidermophyton. So far, about 30 species of dermatophytes have been identified as human pathogens¹. Although infections caused by dermatophytes are generally limited to the surface regions of the skin, these fungi can behave in a manner invasive, causing deeper and disseminated infection, especially in immunocompromised patients². World Health Organization estimates dermatophytes affect about 25% of the world population³. Anthropophilic dermatophytes are associated with humans and rarely infect animals. Zoophilic dermatophytes cause infection in animals and may infect humans who come in contact. Geophilic dermatophytes are generally found in soil and take part in decomposition of hair, nails, feathers and horns⁴.

When the organism grows on the host, living tissue is not usually invaded. The organism simply colonizes the keratinized outermost layer of skin. The disease is known as tinea or ringworm. It is the result of the host reaction to the enzymes released by the fungus during its digestive process. Dermatophytes are the only fungi that have evolved a dependency on human or animal infection for the survival of the species. It is therefore these fungi are among the most common infectious agents⁵. The most common dermatophytes that causes cutaneous mycoses are Trichophyton rubrum, Trichophyton mentagrophytes, Microsporum canis and Trichophyton tonsurans⁶. The tinea infections are prevalent worldwide but they are common in geographical areas with higher humidity. Overpopulation and poor hygienic living conditions also contribute to dermatophytic infections. Hot and humid climate of Bangladesh makes dermatophytosis a very common superficial fungal infection of skin⁷. In recent years, the number of human infections caused by this group of fungi has increased considerably

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and is of particular concern in immune compromised patients⁸. Studies conducted show that resistance among dermatophytes is not uncommon and fluconazole to be most resistant and voriconazole to be most sensitive drug for dermatophytes. Some investigators reported that the disease pattern of fungal infections varies among the different countries and different areas within the same country^{9,10}. Due to high temperature and increased humidity, there are increased cases of dermatophytosis and terbinafine. Therefore, this study was carried out to find out incidence of dermatophytes infection as well as prevalence of drug resistance and the efficacy of Voriconazole to superficial fungal infection.

Materials and Methods

Hundred clinically diagnosed cases of dermatophytes, 40 males and 60 females between ages 20 and 65 years attending at skin out patients department of Zainul Haque Sikder Women’s Medical College, Bangladesh from August 2018 to August 2019 to observe the efficacy and safety of voriconazole among the resistant cases of dermatophytosis.

Procedure of Treatment

The patient of tinea infections was identified first. The diagnosis was made on the clinical basis by assessing morphology of lesions, Pruritus, age of onset and their distribution sites. To reach a clinical diagnosis detailed history and thorough physical examination done. Then clinical conditions of the patient were recorded. (by us) along with hematological and biochemical profile, like blood for total count, differential count, ESR, platelet count, random blood sugar, serum for ALT and serum creatinine level. Finally, all patients with tinea infections which is diagnosed clinically & mycologically were treated by oral Voriconazole 200 mg (available as Voricon 200mg tab) 1st day 400mg twice then from 2nd day onward 200 mg twice daily for 4 weeks. The cases were divided as None, mild form (itching, red and flaky skin), moderate form (moderate itching, thick, oily and yellow) and severe from (extensive itching, inflamed skin) and patient’s subjective assessment of pruritus and burning sensation were evaluated before and after treatment. A final medical assessment of efficacy and safety are made at the end of the treatment period using a four -point scale (categories: Fully cure 80%, moderately cure 15%, & 5% resistant) and the assessment result is recorded and analyzed to prepare the final result. Follow up were done at the end of 0, 1st, 2nd, & 4th week.

Results

The study was carried out for a period of total 12 months from August 2018 to July 2019 in the OPD at Zainul Haque Sikder Women’s Medical College, Bangladesh.

Total one hundred patients of tinea infections were selected. Among them, 20-35 years age group was 56%, 35-50 years was 33%- and 50-65-years age group was 11%, regarding sex, (36%) males and (64%) females between 20-65 years aged patients with tinea infections (Table I).

Table 1: Incidence at age of onset and sex distribution (n=100)

Age at onset	Male (%)	Female (%)	Overall (n-100)
>20-35	25 (45.69)	31 (55.37)	56
35-50	6 (17.32)	27 (82.27)	33
50-65	5 (46.76)	6 (51.96)	11
Total	36	64	100

Table 2: Distribution of epidemiological profile (n=100)

Epidemiological profile	Frequency
Married	
Yes	70 %
No	30 %
Family History	
Yes	17 %
No	83 %

In table II among one hundred infected patients 70% are married whereas number of unmarried is 30%. Regarding family history, (17%) had positive family history and (83%) had negative family history of tinea infections. Regarding occupation among the patients, 50% were outdoor worker, 38% were involved in indoor service and rest 12% involved in other occupation (Figure I)

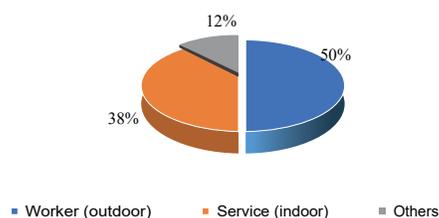


Fig 1: Distribution of respondents according to occupation

Table 3: Distribution of the patient by severity of disease, duration of lesions, and site of lesions (n=100).

Parameters Different forms	Frequency
Mild	2%
Moderate	15%
Severe	83%
Duration of lesion	
Less than 6 months	8%
6 months to 1 years	90%
More than 2 years	2%
Site of lesion (multiple response may exceed hundred)	38%
Tinea cruris (groin)	25%
Tinea corporis (body)	15%
Tinea magnum (hand)	12%
Tinea pedis (foot)	10%
Tinea versicolor (various colors)	

Table-4: Distribution of the patient by response of therapy at the end of the study (n=100)

Form of different tinea infections	Fully cure	Moderately cure
Mild (2%)		0%
Moderate (15%)	2%	0%
Severe (83%)	15%	15%
Total (100)	85%	15%

Table 5 showed that 85% patients of different tinea infections had fully cure, only 15% moderately cure. 15% severe patients were moderately cure and they need to increase the duration.

Table 6: Incidence of side effects of Voriconazole occurred during the treatment (n=100)

Side effects	Number	Percentage (%)
Rash	3	3.0 %
Headache	5	5.0 %
Vertigo	10	10.0 %
Blurring Vision	30	30.0 %
Total	48	48.0 %

Table 5: showed that only 48 % seen with side-effect like rash 3% rash, 5% headache, vertigo 10%, Blurring Vision 30%. 2 patients have hypersensitivity & discontinue treatment.

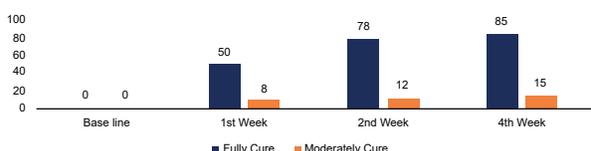


Figure 2: Response of treatment with voriconazole by duration (n=100)

Discussion:

The study was carried out for a period of total 12 months from August 2018 to July 2019 in the OPD at Zainul Haque Sikder Women’s Medical College, Bangladesh. Total one hundred patients of different tinea infections were selected. In table I 20-35 years age group was 56%, 35-50 years was 33%- and 50-65-years age group was 11%, regarding sex, (36%) males and (64%) females between 20-65 years aged patients with tinea infections. In table II among one hundred infected patients 70% are married whereas number of unmarried is 30%. Regarding family history, (17%) had positive family history and (83%) had negative family history of tinea infections. In figure I: Regarding occupation among the patients, 50% were outdoor worker, 38% were involved in indoor service and rest 12% involved in other occupation. Among the one hundred patients of different tinea infections in table II, mild form was 2%, moderate was 15% and severe was 83%. Regarding duration of lesions, most of the cases 90% duration was in between 6 months to 1 years, and 8% was less than 6 month and rest of 2% was more than 2 years. Regarding site of lesions, maximum patients of different tinea infections 38% had involvement of groin, next 25% had involvement in the body, 15% had involvement in hand, 12% & 10% are respectively foot and others etc. . Fifty percent of total patients are outdoor worker used to exposure in sunlight and hot humid climate for their nature of occupation. This reflects the precipitating factor of tinea infections. The study showed that 85% patients of different tinea infections had very good response, only 15% patients were moderately cure of tinea infections and 5% patients found in resistant to Voriconazole. The efficacy of oral antifungals was attributable to their antifungal and/or anti-inflammatory effects by Gupta, Nicol and Batra 8. At present, systemic use of fluconazole, ketoconazole, itraconazole, and terbinafine has been associated with very low clinical response in the treatment of different tinea infections because of their narrow spectrum as well as high resistance rate. However, the efficacy of oral voriconazole which was highly effective against a greater spectrum of dermatophytes causes tinea infections and showed marked improvement. In one study, oral voriconazole first day 400 mg twice and from 2nd day 200 mg twice daily for 4 weeks. This dosage was chosen because it has been used effectively and safely in the treatment of different tinea infections. The study showed (Figure II) showed that improvement of fully cure group is 50% observed and moderately cure group 8% improvement on the 1st follow up visit at the 1st week. On the 2nd follow up visit at 2nd week, 78% cure of fully cure group and 12% cure of moderately cure group. Then 85% cure of fully cure group as well as 15%

moderately cure group at 4th week. The safety profile of voriconazole when used on a long-term basis, its efficacy against dermatophytes causes tinea infections, make voriconazole an excellent therapeutic option in different superficial fungal infections and treatment of choice in 'recalcitrant cases' of tinea infections. Our study had several limitations. First, no fungal culture was performed and the clinical outcome could not therefore be correlated with *Malassezia* yeast colonization. Consequently, a possible anti-inflammatory effect of voriconazole could not be evaluated. In addition, the self-remitting course of the disease, the number of patients and the duration of treatment in this study may have been insufficient to evaluate drug-related improvement. The current study was an attempt to develop a short, convenient, and safe treatment protocol, which is strongly needed for different tinea infections. The results of this study indicate that voriconazole is a suitable treatment for the patients of different superficial fungal infections like tinea and others. However, larger studies using different dosages and durations of therapy may provide a rationale for systemic use of voriconazole in different superficial fungal infections.

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Original article

Reproductive health practice of married women in the rural community

Shila Rani Das¹, Monowar Ahmad Tarafdar², Md. Saizuddin³, Nadia Begum⁴, Sultana Begum⁵,
Mehruha Afreen⁶

Abstract:

This cross sectional study of fifteen days' duration was conducted among Married women attending in OPD at Dhamrai Dhaka to know Reproductive Health Practice of Married Women in the Rural Community with a sample size of 100 following purposive sampling technique using pretested semi-structured questionnaire by face to face interview method after taking informed consent. Data were analyzed manually and by using computer. Only 39% respondents were found within age group 20-30 years and 33% completed primary education. Majority the of respondents (79%) were married. This study also found that 39% were housewives and majority (56%) had poor monthly income (TK <10,000). Majority (78%) of respondent's duration of married life less than or equal to 15 years. This study also revealed that (72%) respondents were found having their first issue less than or equal to 25 years of age. About 40% respondents were found having two children. About 47%, 52% & 25% respondents received advices on healthy diet, personal hygiene and cautions about drug uses respectively during antenatal period. Majority (84%) of respondents were done USG on their routine antenatal care investigation. About 65% respondents delivered their last issue at hospital among them 55% respondents last delivery conducted by qualified doctors. Majority (85%) respondent received TT immunization and 71% respondents were not faced any complication in last delivery and 53% respondents were suffering from problems related to reproductive system and among them abortion (35%), PPH (30%) and perineal tear (20%). Reproductive health practice was still worse among the rural community Effective strategies must be taken to improve reproductive health status of the rural women.

Key words: Reproductive Health, Antenatal care, Morbidity pattern, Practice

Introduction:

Reproductive Health (RH) is a state of complete physical, mental and social well-being (not merely the absence of disease and infirmity) in all matters relating to the reproductive system and its functions and processes.¹ Women reproductive health is relatively a new area of health intervention in Bangladesh and becomes an important issue. Among the women, married adolescents are particularly vulnerable regarding reproductive health problem in Bangladesh.³ The reproductive health approach is concerned not only with pregnancy related health issue, but also with health and human right issues.⁴ Reproductive rights embrace certain

human rights that are already recognized in national laws, international human rights documents and other consensus documents.⁵ Reproductive and sexual health rights are rights of all people, regardless of age, gender and other characteristics.⁶ Women have the right to the enjoyment of the highest attainable standard of physical and mental health and is vital to their life and well-being and their ability to participate in all areas of public and private life.⁷ Reproductive rights must be protected, promoted and filled if sexual and reproductive health outcomes are to be improved, particularly for the poor and vulnerable.⁸ The socioeconomic and demographic characteristics of people in a particular society are likely

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to be different from each other. These may also vary from one geographical setting to another.⁹ In developing world, 1/3rd of all healthy adult women are lost due to reproductive health problem.¹⁰ Female population is about 60.26 million in Bangladesh and married women of reproductive age group constitute 51.7% of total female population.¹¹ More than 500,000 women die every year due to pregnancy related complications in the developing world.¹² Although the legitimate age at first marriage is 18 years for females and 21 years for males, rural females tend to marry even earlier. Approximately 75% of the girls are married before the age of 16, and only 5% are married after 18 years.¹³ The number of births attended by skilled health personnel is 13%. and most of the deliveries takes place at home.¹⁴ The Government of Bangladesh seeks to create conditions whereby the people of Bangladesh have the opportunity to reach and maintain the highest attainable level of health and adopted the Health and Population Sector Strategy (HPSS) in 1998 to provide a package of essential health care services for the people and to slow down population growth.¹⁵ The main sectorial objectives of the HPSS are: maintenance of the momentum of efforts in Bangladesh to lower fertility and reduce mortality, reduction of maternal mortality and morbidity and reduction in the burden of communicable diseases.¹⁶ The Health and Population Sector Program (HPSP) was formulated in 1998 on the basis of HPSS. In order to encompass all the activities of the health sector, the Government has revised the HPSP and formulated the new 'Health, Nutrition and Population Sector Program (HNPSPP), 2003-2006.¹⁷ The vision and targets outlined in the Interim Poverty Reduction Strategy Paper (i-PRSP) of the government have been adopted as overarching long-term policy framework for HNPSPP.¹⁸ The Programme of Action called upon countries to strive to make accessible through the primary health-care system, reproductive health to all individuals of appropriate ages as soon as possible, and no later than the year 2015.¹⁹

Material and methods: This cross sectional study of fifteen days' duration was conducted among Married women attending in OPD at Dhamrai Dhaka to know reproductive health practice of married women in the Rural Community with a sample size of 100 following purposive sampling technique using pretested semi-structured questionnaire by face to face interview method after taking informed consent. Data were analyzed manually and by using computer.

Result: Table I shows that About 39% respondents were found within age of 20-30 years followed by 23%

within 15-20 years, 23% within 30 to 40 years and 14% respondents were within age group more than 40 years. About 33% respondents were complete primary education, 24% illiterate, 31% secondary, HSC & above 12%. Majority (79%) of respondents were married followed by 13% widow and 8% divorce. Most of them 39% were housewives followed by 29% service holder, 21% day labor and major segment (56%) had poor monthly income (TK <10,000).

Table 1: Sociodemographic characteristics of respondents (n = 100)

Age in years	Frequency	Percentage
15-20 years	23	23%
20-30 years	39	39%
30-40 years	23	23%
> 40 years	14	14%
Education		
Illiterate	23	23%
Primary	33	33%
Secondary	31	31%
Higher secondary and above	12	12%
Marital status		
Married	79	79%
Widow	13	13%
Divorced	8	8%
Occupation		
Housewife	39	39%
Service holder	29	29%
Day labour	21	21%
Others	11	11%
Monthly Income		
Less than 10,000 taka	56	56%
1000-20000 taka	24	24%
20000-30000 taka	12	12%
Above 30000 taka	8	8%
Total	100	100%

Table No. 2 describes respondents by duration of married life, age at first issue & number of children. Majority (78%) of respondent's duration of married life less than or equal to 15 years and majority (72%) respondents were found having their first issue at less than and equal to 25 years of age. About 40% respondents were found having two children and 33% respondents were found having one child only.

Table 2: Distribution of respondents by duration of married life, age at first issue & number of children (n = 100)

Duration of married life	Frequency	Percentage
Less than and equal or 15 years	78	78%
More than 15 years	22	22%
Age at first issue		
Less than and equal to 25 years	72	72%
More than 25 years	18	18%
Number of Children		
1	33	33%
2	40	40%
3	18	18%
4	9	9%
Total	100	100%

Table 3 shows that about 47%, 52% & 25% respondents received advices on healthy diet, personal hygiene and cautions about drug uses respectively. Almost (84%) of respondents were done USG followed by 67% were done Hb%, 34% urine R/M/E and 21% blood grouping respectively.

Table 3: Distribution of respondents by antenatal advices & investigations done during last delivery (Multiple response)

Antenatal Advice	Frequency	Percentage
Health diet	47	47%
Personal hygiene	52	52%
drug use	25	25%
Warning sign	15	15%
Investigations done in last pregnancy		
USG	84	84%
Hb%	67	67%
HbsAg	41	41%
Urine R/M/E	34	34%
Blood grouping	21	21%
Stool R/M/E	5	5%
Chest X-ray	2	2%

*Multiple response

Figure 1 describe distribution of respondents by place of last delivery majority (65%) of respondents delivered

their last issue in hospital and 35% delivered at homes.

Place of delivery

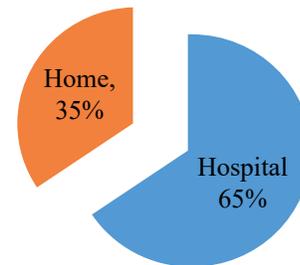


Figure 1: Distribution of respondents by place of last delivery

Figure 2 shows that About 55% respondents last delivery conducted by qualified doctors followed by 25%, 10% and 10% untrained birth attendant, skilled birth attendant and nurses respectively.

Personnel conducted delivery

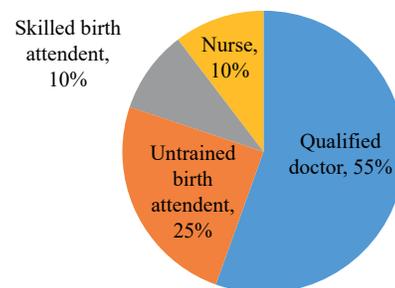


Figure 2 Distribution of respondents according to investigation of personnel by women their last delivery done (n = 100)

Table No. 4 describe distribution of respondents' TT immunization, complications during last delivery & problems related to reproductive system. Majority (85%) respondent received TT immunization and 35% did not receive any immunization. Majority (71%) had no complication in last delivery and 29% respondents faced complications during last delivery and 53% respondents were suffering from problems related to reproductive system and 47% had no problem.

Table 4: Distribution of respondents' TT immunization, Complications during last delivery & Problems related to reproductive system (n = 100)

TT vaccination received	Frequency	Percentage (%)
Yes	85	85%
No	15	15%
Complications during last delivery		
Yes	29	29%
No	71	71%
Problems related to reproductive system		
Yes	53	53%
No	47	47%

Figure 2 shows that abortion (35%), PPH (30%), perineal tear (15%), neonatal convulsion (10%), still birth (9%) and hand prolapse (2%) were the most common complications during last delivery.

* Multiple response

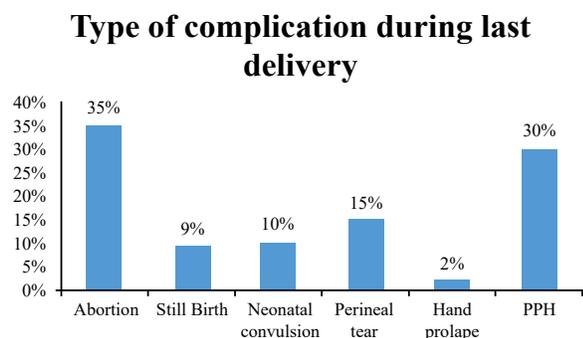


Figure No. 3: Distribution of respondents according to their type of complication during last delivery.

Discussion: The present study aimed to know Reproductive Health Practice of married women in the rural community. In this study about 39% were found within age of 20-30 years followed by 15-20 years (23%), 30 to 40 years (23%) and ≥ 40 years (14%) and about 33% respondents completed primary education and only 12% had education HSC and above. Majority (79%) of respondents were married followed by widow and divorced 13% and 8% respectively. A completely dissimilar picture was observed by M Rahman where 86% of the respondents were found within the age group of 20-39 years and 99% were married, whereas only 0.56%, 0.38% were widow and divorced respectively; 33%,

39% & 13% completed Primary, Secondary and HSC level of education respectively. About 15% respondents were illiterate.²⁰ About 39% were housewives followed by service holder (29%), day labor (21%); 56% had poor monthly income (TK <10,000). Almost similar finding was revealed by the Centre for Integrated Rural Development of Asia and Pacific where 82% of women in rural areas were found unpaid family workers.²¹ Majority (78%) of respondent's duration of married life ≤ 15 years and 72% respondents were found having their first issue at ≤ 25 years of age and about 40% were found having 2 children and 33% had one child only. Similar finding was depicted through the survey of MOHFW where 75% of the girls were found married before the age of 16. Because of early marriage majority (69.8%) of the women had first child birth during adolescence (16-18 years) but the survey of MOHFW found that about 30% of female adolescents of Bangladeshi were already mothers.²² About 47%, 52% & 25% respondents received advices on healthy diet, personal hygiene and cautions about drug uses respectively. Almost (84%) of respondents done USG on their routine antenatal investigation. Majority (65%) of respondents delivered their last issue at hospital. Relevant survey conducted by SVRS, BBS had different finding where home delivery was 87.1%.²³ About 55% respondents last delivery conducted by qualified doctors. This finding varies with the finding of the survey of BDHS, which estimated 64.0% delivery conducted by untrained birth attendants.²⁴ Almost (85%) respondent received TT vaccine and 71% respondents last delivery faced without any complications and only 29% respondents faced complications. About 53% respondents suffered from problems related to reproductive system among them abortion (35%), PPH (30%) and perineal tear (15%) were the most common complications during last delivery.

Conclusion

Women in rural Bangladesh are not empowered economically, social and their reproductive health rights are mostly neglected. Effective strategies and initiation must be taken to improve reproductive health status of the women in rural Bangladesh.

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Original Article

Study on knowledge, attitude and practice of personal hygiene among selected rural people

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Abstract:

Descriptive type of Cross sectional study conducted in Jaintapur Upazila from the period of October-December 2017 to assess knowledge, attitude and practice of personal hygiene among selected rural people with a sample size of 308 using a semi-structured questionnaire following purposive sampling technique. Out of 308 respondents about three fourth of respondents were Muslims, 55.8% were male. More than half were in the age group 15-35 years, 85.7% were married, 44.5% were Illiterates. 30.4% were house wife and only 6% had their monthly income \geq Tk. 30,000. Almost 286(92.8%) respondents had knowledge on importance of hand washing, majority 244(79.2%) had knowledge about transmission of Communicable disease by Hand contamination. Regarding factors causes discouraging from hand washing about 123(39.9%) respondents forget to wash, 74(24%) feel Shortage of time and 70(22.8%) not known. Only 13% of respondents wore ring during cooking and food handling. Almost 290(94.2%) washed hand before eating, 298(96.8%) washed their hand after coming back from the toilet and 301(97.7%) respondents had habit of Cutting Nail. Majority of them 234 (78.5%) used soap for hand washing after coming back from latrine, only 1(0.3%) used liquid hand wash and others respectively. About (84.1%) discussed about hand washing with their children and family members and 238(77.3%) respondent's children's habit of hand washing of children before taking food & after toilet. More than half of respondents got information from Radio and Television, 79(25.6%) from health educator, 17(5.5%) from others. Awareness of general people about hand washing and its practices should be increased within earliest possible time through behavior Change Communication (BCC) programme of GO/NGO partnership should be planned with more emphasis on hand washing.

Key words: Knowledge, Practice, Attitude, Rural people

Introduction:

Health is the quality of life that renders the individual fit to live most and serve best. Personal hygiene or personal health care deals with measures which are the personal responsibilities of the individual for the promotion of good health.¹ For healthful growth and development, cleanliness plays an important role. The child in a family should be trained to develop the habit of washing his hands before and after eating and after using the toilet.¹ Even though proper hand washing is the most effective and easiest way to prevent many diseases, unfortunately many people do not practice hand washing correctly.³

Public health importance of hand washing as well as its importance in reduction of communicable diseases such as diarrhea and acute respiratory infections have been highlighted in many studies worldwide.⁴ It can

significantly reduce the two biggest causes of childhood death- diarrhoeal disease and acute respiratory infections such as the flu. Good hand washing requires water, soap and ideally clean hand drying facilities. But most importantly there must be hygiene promotion to encourage hand washing after using the toilet, before handling food, changing a child's nappy and after touching animals and before eating.⁵

Materials and Methods:

Descriptive type of Cross sectional study conducted in Jaintapur Upazila from the period of October-December 2017 with a sample size of 308 among the respondents age 15 years and above to assess knowledge, attitude and practice of personal hygiene among selected rural people using a semi structured questionnaire employing purposive sampling technique. Data was collected by face to face interview and checked and cleaned for

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inconsistencies. Data were analyzed manually and by using calculator and computer.

Results

About three fourth 85.1%, of respondents were Muslims, 55.8% were male. More than half were in the age group 15-35 years; only 7.1% >65 years. Majority of the respondents (85.7%) were married, 44.5% were Illiterates and only 23(7.4%) have their education level H S C and above. About 30.4% were house wife followed by 20.3% day-labor, 16% farmer, 14.7% businessman and 4.2% service holder. About 27% monthly income Tk. 1000 to 5000 and only 6% had their monthly income ≥Tk. 30,000. Almost 286(92.8%) respondents had knowledge on importance of hand washing. Majority 244(79.2%) had knowledge about transmission of Communicable disease by Hand contamination. Regarding factors causes discouraging from hand washing about 123(39.9%) respondents forget to wash, 74(24%) feel Shortage of time and 70(22.8%) not known (Table 1). Only 13% of respondents wore ring during cooking and food handling. Almost 290(94.2%) washed hand before eating, 298(96.8%) washed their hand after coming back from the toilet and 301(97.7%) respondents had habit of Cutting Nail (Table 2). Majority of them 234 (78.5%) used soap for hand washing after coming back from latrine, 49(16.4%) used only running water, 6(2.1%) used ash, 6(2.1%) used soil and only 1(0.3%) used liquid hand wash and others respectively (Figure 1).About 76% used sanitary latrine (Figure 2) Majority of respondents 259 (84.1%) discussed about hand washing with their children and family members and 238(77.3%) respondent’s children’s habit of hand washing of children before taking food & after toilet (Table 3). More than half of respondents 193(62.7%) got information from Radio and Television, 79(25.6%) from health educator, 17(5.5%) from others, 7(3.3%) had no response, 8(2.6%) from bill board, 4(1.3%) from newspaper (Table 4).

Table 1: Knowledge on personal hygiene (n=308)

Knowledge on personal hygiene	Frequency	Percentages
Knowledge on importance of hand washing		
Yes	286	92.8
No	22	7.2
Knowledge about transmission of Communicable disease by Hand contamination.		
Yes	244	79.2
No	64	20.8
Factors causes discouraging from hand washing		
Shortage of time	74	24
Forget to wash	123	39.9

Inadequate facilities	22	7.2
Work takes priority	18	5.8
Others	01	0.3
Not known	70	22.8
Total	308	100

Table 2: Distribution of respondents by personal hygiene Practice (n=308)

Hygiene practice	Frequency	Percentages
Wear rings during cooking and food handling		
Yes	39	13
No	269	87
Washing hand before eating food		
Yes	290	94.2
No	18	5.8
Washing hand after coming from toilet		
Yes	298	96.8
No	09	2.9
Non response	01	0.3
Habit of cutting nail		
Yes	301	97.7
No	07	2.3
Total	308	100

Substances used for hand washing

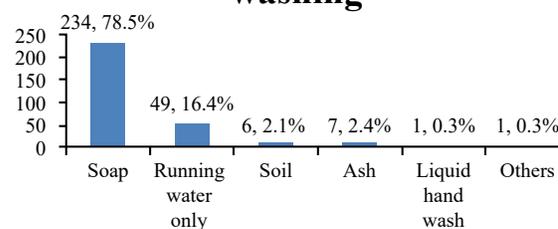


Figure 1: Substances used for hand washing after coming from toilet. (n=308)

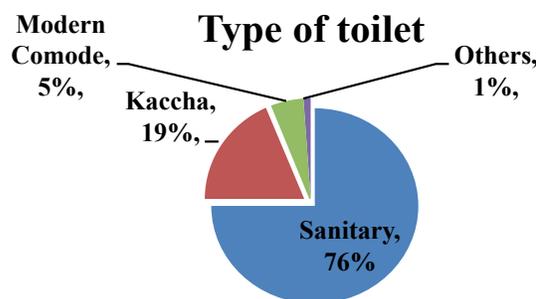


Figure 2: Type of toilet used

Table 3: Respondents attitude regarding personal hygiene

Attitude regarding personal hygiene	Frequency	Percentages
Discussed about hand washing with their children and family members		
Yes	259	84.1
No	41	13.3
Non response	08	2.6
Habit of hand washing of children before taking food & after toilet		
Yes	238	77.3
No	52	16.9
Non response	18	5.8
Total	308	100

Table 4: Sources of getting information (n=308)

Sources of getting information	Frequency	Percentages
Radio/ TV	193	62.7
Newspaper	4	1.3
Health educator	79	25.6
Billboard	8	2.6
Others	17	5.5
Non-response	7	3.3
Total	308	100

Discussion:

In this cross sectional study, data were collected purposively from 308 respondents. Majority of them were Muslims (85.1%), among them 55.8% were male and 43.2% were female. More than 50% of the respondents were in the age between 15 and 35 years. Most of the respondents (85.7%) were married. A big proportion of them (44.5%) were illiterate, only 23% respondents have their education level HSC and above. This is the general characteristics of Bangladeshi rural population and is supported by the findings in Population and Housing Census 2011, Bangladesh.¹² About occupation, 30.4% were house wife, 20.3 were day-labor, 16% were farmer. Only about 6% had their monthly income Tk. 30,000 or more, about 27% of them had monthly income in the range of Tk. 1000 to 5000. Majority of the family (39.4%) have children up to 3. About 50% families have their children number ranging 4 to 6. This finding is similar to the findings of Bangladesh Demographic and Health Survey (BDHS) 2011, although the economic status was a bit different as the study area was around a market place where the residents were mostly involved in

manual works of transporting coal and stone.¹³

Present study revealed that (93%) respondents were aware about hand washing as regarding to prevention of diseases 79.2% said that transmission of communicable diseases occur through contaminated hand. Similar findings were observed in a report in USA in the year 2009.¹⁵ About 40 % respondents pointed to absent mindedness for the purpose, 24% about shortage of time and 7.2% said about inadequate facilities. Similar finding was observed in a study in Ghana in the year 2009.²⁰

Twelve percent of the respondents wore ring during their working hour. Most of them (94.2%) washed hand before eating and 96.8% washed their hand after coming back from the toilet. A great majority of them (78.6) were used soap for hand washing after coming back from latrine and 16.4% used only running water. Use of ash and soil for the purpose was 2.3% & 2.1% respectively. Slightly different findings were observed in Indonesia in the year 2007.¹⁶

In the current study it was revealed that almost 98% respondents cut their nail regularly. They used different types of latrine; majority of them used sanitary latrine (80.1%). Slightly different findings were presented in a study in Iraq in the year 2008. The difference in the findings probably due to that most of the Iraqi people use spoon instead of bare hand as in Bangladesh.¹⁷

Most of the respondents (84.1%) used to discuss the matter with their children and family members; 77.3% of them also followed up of their children’s hand washing practice. Similar data was found in a study conducted by Department of Health, University of Hong Kong on April 2004.¹⁹

A clear-cut majority of them (62.7) uttered the name of common mass media - Radio and Television. A quarter of them get their information from health educator i.e., grass root level health workers. Role of Newspaper, Bill board or other media was not so significant. Similar finding was also observed in a study in Austria in the period January-February 2013.²¹

Conclusion

Awareness of general people about hand washing and its practices should be increased within earliest possible time through behavior Change Communication (BCC) programme of GO/NGO partnership should be planned with more emphasis on hand washing.

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Original Article

Comparative study of day 01 spica cast versus skin traction followed by spica cast for treatment of closed femoral shaft fracture in children

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Abstract:

Femoral shaft fractures are among the commonest fracture of lower extremity in children and commonly require hospital admission. There are various modalities of treatments both operative and non-operative. The aim of treatment is to secure union, in good alignment with length restored and early rehabilitation. objective of this study was to compare the results of day 1 spica cast and skin traction followed by spica cast in the treatment of femoral shaft fractures in children (6 months to 10 years). A total of 64 patients with fracture shaft femur of either sex aged 6 months – 10 years with closed, isolated diaphyseal femur fracture were included in this study. Case with clinical evidence of infection, pathological fractures and multiple injuries including neurovascular injuries were excluded from the study. The patients were randomly assigned into two groups, Group -1 (n-32) patients who underwent early spica application while Group -2 (n-32) patients underwent skin traction in followed by spica cast. Mean age in group A was 5.06 years and 5.12 years in group B (range 6 month – 10 years). Ratio of males and female in Group A and Group B was 19:13 and 20:12 respectively. Average duration of hospital stay was 1.65 days and 11.65 days in group A and group B respectively. Average total time of spica cast application was 45.13 days 49.41 days in group A and group B patients respectively. There were no significant differences between early and delayed spica regarding the complications of treatment and functional outcome. But immediate spica decreased the hospitalization time and the cost of treatment significantly with increased availability of beds while having similar result as achieved by delayed spica application.

Keywords: Femur, Fracture, Hip spica, Traction.

Introduction:

Femoral shaft fractures can occur in children of all ages. They account for 1.6 % of all children fractures, and they lead to significant impact on the child and family¹. Direct or indirect loading of diaphysis of a femur may result in fractures. Direct hit on the thigh by an automobile results in direct violence leading to fracture which is transverse or with butterfly fragments, whereas indirect violence or rotational force results in spiral or oblique fracture of diaphysis of femur^{2,3}. The etiology of the femoral shaft fracture varies with the age of child with the fall from height and the road traffic accident being the most common cause^{4,5}. The diaphysis of femur has an excellent blood supply and therefore good healing potential and due to the extensive musculature surrounding it cause displacement^{6,7}. Hemorrhagic shock and secondary anemia are the most important early complications, whereas the late complications include prolonged recumbency, joint stiffness, malunion, nonunion, leg

length discrepancy and infection⁸. The aim of treatment is to secure union, in good alignment with length restored and early rehabilitation⁹. Various methods of treating femur shaft fractures in children are pelvic harness, Padding, hip spica cast, skin traction (can be followed by hip cast), skeletal traction, elastic intramedullary nails and semi-rigid pediatric locking nail^{10, 11}. In children spica casting or initial traction followed by spica casting an effective treatment modality, largely because they have a tremendous ability to remodel the deformities that remain after closed treatment in remodeling stage of fracture healing¹². A number of variables including age and weight of the child, type of fracture, associated injuries or polytrauma and socioeconomic status of the family affect the decision to manage a femoral shaft fracture by conservative or operative means¹³.

Methods and Materials

A comparative study was conducted at Z.H Sikder women's medical college hospital, Dhaka from July

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2017 to July 2018. This study consists of 64 patients of either sex with fresh (Upto one week from time of injury) isolated closed diaphyseal fractures of femur from 06 months to the age to 10 years. Children less then 06 months of age and older than 10 years , Open fractures, Infected case, Poly trauma cases, Pathological fractures, Multiple and segmental fractures were excluded from study. The patients were randomly divided into two groups. Group A was consisted of 32 patients who were treated by day 01 spica cast. Hematoma infiltration with 2% xylocain with 22 gauge needle and midazolam sedation was given for muscle relaxation. Fracture was assessed by c-arm for the the alignment and angulation correction. Traction and counter traction was applied by two assistants. Group B was consisted of 32 patients which were treated with initial skin traction followed by hip spica cast. The injured limb was put on skin traction using weight appropriate for age, limb position was adjusted with sand bags. X-ray were taken after 5-7 days of skin traction to check fracture alignment. After 7-21 days of traction, when fracture had become sticky, well moulded one and half spica was applied under GA. Parents were given instruction regarding spica care before discharging the patients. Regular follow up at 01,04,06,10, and 12 weeks. At every visit spica was checked for cracks and skin of child was examined. X-ray were taken at 06, 10 and 12 weeks. Clinical examination was performed after removing the cast to evaluate gait, limb length discrepancy and malalignment. For data entry and analysis statistical software SPSS 20.0 was used. Statistical comparison between Group A and Group B was performed by using Chi square for qualitative variables and students test for quantitative variables.

Results

A total of 64 children were included in the study with 32 children in each group. Mean age in group A was 5.06 years (range 06 months to 10 years) and 5.12 years (ranges 06 months to 10 yrs) in group B (Table 1). Ratio of males and female in group A and group B was 19:13 and 20:12 respectively. Right side was involved in 15 and 14 patients in group A and B respectively wheres 17 and 18 patients had left side involvement in group A and B respectively. The mechanism of injury was fall from height in 14(43.75%), RTA in 5 (15.62%), fall of object in 8,(25%) sports injury in 3 (9.37%) and hit by animals was seen in 2 (6.25%) in Group A Patients wheres in Group B Patients fall from height, RTA, Fall of object, sports injury and hit by animals was seen in (15,5,7,3 and 2 patients respectively). Proximal, middle third and distal third fracture was seen in 9,12 and 11 patients in Group A and 11,11 and 10 patients in Group B. Level of fracture: Spiral, Oblique and transverse fracture was seen

in 12,10,10 in group A children and 13,10 and 9 in group B children respectively.

Table 1: Demographic Characteristic according to treatment group

Demographic characteristic	Group A Hip spica cast (n=32)	Group B Initial traction followed by hip spica cast (n=32)
Number of patients	32(50%)	32(50%)
Average age(years)	5.06	5.12
Age (years)	0-3	6(18.75%)
	3-5	11(34.37%)
	5-7	7(21.87%)
	7-8	5(15.62%)
	8-10	3(9.37%)
Gender M/F (% of patients)	19:13	20:12
Side (L/R) (% of patients)	15:17	14:18
Types of fracture (% of patients)	Spiral	12(37.5%)
	Oblique	10(31.25%)
	Transverse	10(31.25%)
Mechanism of injury (% of patients)	RTA	5(15.625%)
	Fall from height	14(43.75%)
	Fall of object	8(25%)
	Sports injury	3(9.37%)
	Hit by animals	2(6.25%)
Level of fracture (% of patients)	Proximal	9(28.12%)
	Middle third	12(37.5%)
	Distal third	11(34.37%)

Limb length discrepancy:

Among children in group A no discrepancy was seen in 27 (84.37%), and discrepancy of 2-3 cm was seen in 5 children (15.62%). Whereas among children in group B no discrepancy was seen in 30 (93.75%), and discrepancy of 2-3 cm was seen in 2 children (6.25%). None of the children in either had discrepancy of more than 3 cm.

Table 2: Limb length discrepancy

Limb length discrepancy	Group A (n= 32) Hip spica cast	Group B (n= 32) Initial traction followed by hip spica cast	P value
No discrepancy	27(84.37%)	30 (93.75%)	0.236
2-3 cm	5 (15.62%)	2 (6.25%)	
3-4 cm	0	0	
> 4 cm	0	0	

Angulation: Among children in group A angulation of 10-15 ° was seen in 24 (75%), angulation of 15-20 ° was seen in 6 children (18.75%) and angulation of more than 20 ° was seen in 2 (6.25%). Whereas among children in group B angulation of 10-15 ° was seen in 22 (68.75%), angulation of 15-20 ° was seen in 8 children (25%) and angulation of more than 20 ° was seen in 2 (6.25%) .

Table 3: Angulation

Angulation	Group A (n= 32) Hip spica cast	Group B (n= 32) Initial traction followed by hip spica cast	P value
10-15	24(75%)	22(68.75%)	0.679
15-20	6(18.75%)	8(25%)	
>20	2(6.25%)	2(6.25%)	

Range of movements (Hip and Knee at 6 week): In Group A, 4(12.5%) children were having free range of movements at hip and knee at 6 weeks, while 26 (81.25%) patients have decreased range of movements by 20° and 2 (6.25%) patient developed decreased range of movements more than 20°. Where as in patients of Group B, 6 (18.75%) patients were having free range of movements at hip and knee at 6 weeks, while 24 (75%) patients have decreased range of movements by 20° and 2(6.25%) patient developed decrease in range of movements of more than 20°.

Table 4: Range of movements

ROM at 6 weeks (Hip & knee)	Group A (n= 32) Hip spica cast	Group B (n= 32) Initial traction followed by hip spica cast	P value
Free	4(12.5%)	6(18.75%)	0.592
Decreased by 20 °	26(81.25%)	24(75%)	
Decreased by >20 °	2(6.25%)	2(6.25%)	

Quadriceps wasting at 6 weeks: Among children in group A 4 (12.5%) children had no wasting whereas 26 (81%) and 2 (6.25%) had mild to moderate and severe wasting respectively. Among children in group B no wasting was seen in 6 (18.75%) cases, 24(75%) had mild to moderate wasting and 2(6.25%) had severe wasting.

Table 5: Quadriceps wasting at 6 weeks

Quadriceps wasting at 6 weeks	Group A (n= 32) Hip spica cast	Group B (n= 32) Initial traction followed by hip spica cast	P value
No wasting	4(12.52%)	6(18.75%)	0.529
Mild to moderate	26(81.25%)	24(75%)	
Severe	2(6.25%)	2(6.25%)	

Average duration of hospital stay was 1.65 days and 11.65 days in group A and Group B respectively. Average total

time of spica cast application was 45.13 days and 49.41 days in group A and group B patients respectively.

Table 6: Average hospital stay and Total time of Hip Spica Cast

Group	Hospital stay (Days)	P value
A(n=32)	1.65	0.01
B(n=32)	11.67	

Table 7: Total time of Hip Spica Cast

Group	Total time of Hip Spica Cast	P value
A(n=32)	45.13	0.01
B(n=32)	49.41	

Discussion :

Femoral shaft fractures can occur in children of all ages. They account for 1.6% of all childhood fractures, and they lead to significant impact on the child and family¹. Various method for treating femur shaft fractures in children are Pelvic harness, padding, hip spica cast, skin traction (can be followed by hip cast), skeletal traction, elastic intramedullary nails, semi-rigid pediatric locking nail, submuscular^{11,12}. This study analyses the results of two different non-operative treatment of femoral shaft fracture in children 6 months to 10 years. The first one, consisting of immediate reduction and early hip spica casting and the second corresponds to Initial traction followed by hip spica cast. Closed diaphyseal fractures of femur in children are usually treated by initial traction by 7-21 days followed by an additional period of immobilization in hip spica till the union occurs. However treatment like this would lead to prolonged hospital stay resulting in increasing cost and occupancy of hospital beds. In addition, such treatment would also lead to an extended period of patient’s separation from their families. Immediate and early closed reduction and hip spica casting is an acceptable nonsurgical treatment for children with isolated femoral shaft fractures, especially those younger than 10 years of age^{14,15}. In our study no significant difference in limb length discrepancy, angulation, range of movements and Quadricep wasting at 6 weeks was seen among two groups, however a significant difference in hospital stay duration (p value 0.01) and total time of spica cast application (p value 0.01) was seen among two groups. Hip spica cast is simple, safe, effective, cheap and definitive method of treatment and does not need prolonged hospital stay. Results of our study are comparable with other studies. Studies by Faheem et al¹⁶, Allen et al.¹⁷, Staheli and Sheridan¹⁸, Splain and Denno¹⁹, Sugi and Cole²⁰, Henderson et al²¹ did not find much difference in outcome between early spica cast and skin traction followed by spica cast. With increasing number of patients, the availability of beds is a problem in our setup. There are encouraging results with spica cast from many

years. Hip spica cast avoids prolonged hospitalization thus reducing cost of treatment and allows rapid return of a child to family environment

Conclusion:

Hip spica cast is simple and effective method of treatment. A satisfactory outcome can be achieved by any of the two methods. Hip spica cast avoids prolonged hospitalization thus reducing cost of treatment and reduces occupancy of hospital beds. Hip spica cast also avoids complications related to traction and operative treatment methods. The results achieved with both the non operative methods of treating the closed diaphyseal fractures of femur in children are nearly same, that is insignificant. So we feel that in our setup, hip spica cast is the best method for treating the closed diaphyseal fractures of femur in children.

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Original article

The impact of pictorial warning attached on cigarette packet to the attitude of smoking habit.

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Abstract:

This was a cross sectional descriptive study conducted to assess the effect pictorial warning message on cigarette packets to the attitude and practice of smokers using a semi-structured questionnaire employing purposive sampling technique with a sample size of 214 by face to face interview carried out in different cities, towns, and villages of Bangladesh from August 2016 to February 2017. Almost 97.6% were male and Most of the respondents (40.9%) belonged to the 20-29 years age group. Majority (58.3%) of them were educated from secondary to graduate few percent below primary. Highest 22.9% respondents were students followed by 17.6% private job holder, 16.9% day labor and only 1.4% was jobless. About 40.2% started smoking by the influence of friends, 26.2% started on curiosity and 20% due to depression and majority 41.0% smoked 1-5 cigarette sticks per day. More than half (65.5%) of respondents felt relax to refreshing by smoking and about two third 77.6% continued their smoking due to habitual act or psychological pleasure Almost 93.4% gave attention to the pictorial warning on the cigarette packets. About 46.4% thought pictorial warning in cigarette packets alarms for not to smoke and only 23.8% thought smoking will cause cancer; 21.4% thought smoking is injurious to health. After seeing the pictorial warning on cigarettes 57.6% reduced the smoking number of sticks per day also attempted to quit smoking. To reduce this restricting the advertisement of tobacco, arranging campaign to raise awareness among people about the health and environmental hazards of smoking and increase the tax on tobacco.

Key words: Impact, Pictorial, Cigarette, Attitude, Smoking, Habit.

Introduction:

Tobacco use has predominantly negative effects on human health and concern about health effects of tobacco have long history. Tobacco smoke contains more than 70 chemicals, that cause cancer.¹ When tobacco smoked, nicotine causes physical and psychological dependency. Cigarette sold in underdeveloped countries tends to have higher tar content, and are less likely to be filtered, potentially increasing vulnerability to tobacco smoking related disease.²

Tobacco use is the single greatest cause of preventable death globally.³ The world health organization (WHO) estimates that each year tobacco causes about six million deaths (about 10% of all deaths).^{1,4} The United States centers for disease control and prevention describes tobacco use as “The single most important preventable risk to human health in developed countries and an important cause of premature death worldwide.”⁵

Tobacco use leads most commonly to diseases affecting the heart, liver and lungs. Smoking is major risk factor for heart attacks, strokes, chronic obstructive pulmonary

disease (COPD) including emphysema and chronic bronchitis, and several cancers particularly lung cancer, cancers of the larynx, and mouth, bladder cancer, and pancreatic cancer. It also causes peripheral vascular diseases and high blood pressure. These effects depend on the number of years that a person smokes and on how much the person smokes. Environmental tobacco smoke, or secondhand smoke, has been shown to cause adverse health effects in people of all age.⁶

Tobacco use is a significant factor in miscarriages among the pregnant smokers, and it contribute to a number of other health problems of the fetus such as premature birth, low birth weight, and the chance of sudden infant death syndrome (SIDS) increases by 1.4 to 3 times.⁷ Incidence of erectile dysfunction is approximately 85% higher in male smokers compared to non-smokers.^{8,9}

From the 1890s onwards, associations of tobacco use with cancers and vascular diseases were regularly reported; a met-analysis citing 167 other workers was published in 1930, and concluded that tobacco use caused cancer.¹¹ Follow up prospective cohort studies in the early 1950s clearly found that smokers died faster, and

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were more likely to die of lung cancer and cardiovascular disease.¹⁰

Several countries have taken measures to control the consumption of tobacco with usage and sales restrictions as well as text warning and pictorial warning messages printed on packaging. Additionally, smoke-free laws that ban smoking in public places such as workplaces, theaters, and bars and restaurants reduce exposure to secondhand smoke and help some people who smoke to quit, without negative economic effects on restaurants and bars.¹ Tobacco taxes that increase the price are also effective, especially in developing countries.¹²

Materials and methods:

A cross sectional descriptive study carried out in different cities, towns, and villages of Bangladesh conducted from August 2016 to February 2017 to assess the effect of adding pictorial warning message on cigarette packets to the attitude and practice of smokers. Data were collected by using a pretested structured questionnaire and cigarette packets of different brand as research tool from self-motivated 580 male and female smoker with non-probability purposive sampling method. After collection, data were checked to exclude any error or inconsistency. All ethical issues, which were related to research involved with human subjects, were followed according to the guideline of ethical review-committee. Data were analyzed manually and by using computer. and expressed in frequency and percentage.

Results:

Out 580 respondents (566, 97.6%) were male and (14, 2.4%) were female. In this study young adults (20-29 years' age) respondents were 40.9%, middle aged (30-39 years) were 28.8% and 40-49 years' group were 15.9%. Among the respondent 58.3% were educated from secondary to graduate. 20.2% were up to primary level and rest was below primary.

Highest 22.9% respondents were students followed by 17.6% private job holder, 16.9% day labor and only 1.4% was jobless (Table 1). About 40.2 percent started smoking by the influence of friends, 26.2% started on curiosity and 20% due to depression. Among the respondents 41.0% smoked 1-5 cigarette sticks per day, 30.5% 6-10 sticks and 16.9% smoked 11-15 sticks per day.

Majority 65.5% respondents felt relax to refreshing by smoking. 20.3% felt very healthy after smoking. It has been found that 77.6% continued their smoking due to habitual act or psychological pleasure and only 19.7% thought smoking relief their stress so, continue their smoking (Table 2). Almost 93.4% gave attention to the pictorial warning on the cigarette packets. (Figure

I) About 46.4% respondents thought pictorial warning in cigarette packets is the warning alarm for not to smoke. 23.8% thought smoking will cause cancer and 21.4% thought smoking is injurious to health (Figure II). After seeing the pictorial warning on cigarettes 57.6% respondents reduced the smoking number of sticks per day also attempted to quit smoking (Figure III).

Table-1: Demographic characteristics of respondents (n=580)

Sex	Frequency (n)	Percentage (%)
Male	566	97.6%
Female	14	2.4%
Age		
20-29 yrs.	277	47.7%
30-39 yrs.	167	28.8%
40-49 yrs.	92	15.9%
Above 50 yrs.	44	7.6%
Education		
Secondary to Graduate	339	58.48%
Primary to below Secondary	118	20.34%
Below Primary	113	19.48%
Occupation		
Student	133	22.9%
Service holder	165	28.5%
Businessman	123	21.2%
Day Labor	98	16.9%
Rickshaw Puller	43	7.4%
Jobless	18	3.1%
Total	580	100

Table 2: Characteristics of smoking (n=580)

Characteristics of smoking	Frequency	Percentage
Reason for starting smoking		
By the influence of friends and cousins	312	53.80%
On curiosity	152	26.20%
Depression	116	20.00%
Number of cigarette stick smoked per day		
1-5	287	49.48%
6-10	195	33.62%
More than 10	98	16.90%
Reason for continuation of smoking		
Habitual act or psychological pleasure	450	77.58%
Relief stress	114	19.66%
Others	16	2.76%
Total	580	100

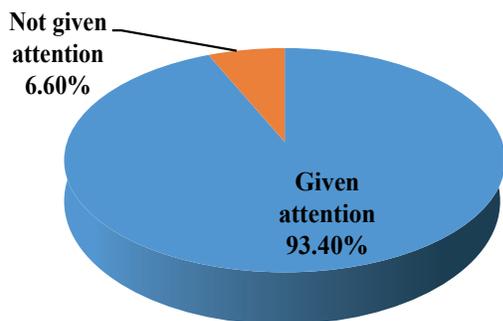


Figure 1: Respondent’s attention to the warning pictures in the cigarette packet (n=580)

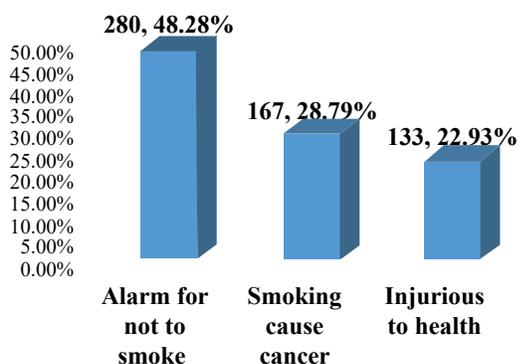
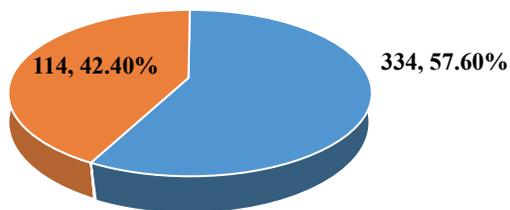


Figure 2: Distribution of respondents according to their thinking after seeing the warning picture



- Reduction of smoking number of sticks per day with intention to quite smoking
- Do not care suck pictorial warning

Figure 3: Impact of pictorial warning on cigarette packets to the smoking habit (n=580)

Discussion:

The study was carried out to find out the impact of adding warning pictures on cigarette packets to the attitude if smoking among the smokers of Bangladesh. The present study was a cross-sectional study which was carried out in various places of Bangladesh. Data was collected from 580 respondents among which 566 were male (97.6%)

and 14 were female (2.4%). Worldwide male smokers are more than female. In 2015, 16.7% of adult males and 13.6% of adult females smoked cigarette.¹³ Such difference may validate to a combination of physiological (particularly ovarian hormones), cultural and behavioral factors.¹⁴

As long time smokers are already suffering from smoking related diseases so, venerable young adult respondents were selected more than older respondents. In this study young adults (20-29 years age) respondents were 40.9%, middle aged (30-39 years) were 28.8% and 40-49 years group were 15.9%. Among the respondent 58.3% were educated from secondary to graduate. 20.2% were up to primary level and rest was below primary. Educated people are more cautious about health. So, higher educated respondents were selected more than the less educated people to see the impact of pictorial warning on cigarette to the attitude of smoking habit. Highest 22.9% respondents were students followed by 17.6% private job holder, 16.9% day labor and only 1.4% was jobless. 40.2 percent started smoking by the influence of friends, 26.2% started on curiosity and 20% due to depression. This result correlates with the findings of Emma et al.⁽¹⁵⁾ Among the respondents 41.0% smoked 1-5 cigarette sticks per day, 30.5% 6-10 sticks and 16.9% smoked 11-15 sticks per day. 65.5% respondents felt relax to refreshing by smoking. 20.3% felt very healthy after smoking. It has been found that 77.6% continued their smoking due to habitual act or psychological pleasure and only 19.7% thought smoking relief their stress so, continue their smoking. These findings are correlated with findings of Md. Shakeel A et al.¹⁶ They found that 76.4% respondents agreed that they continued their smoking habit for psychological pleasure. Among the respondents 93.4% gave attention to the pictorial warning on the cigarette packets. Same response was found by Seth M Noar et al.¹⁷ They found that pictorial warning attracted and held attention better and garnered stronger cognitive and emotional reaction. 46.4% respondents thought pictorial warning in cigarette packets is the warning alarm for not to smoke. 23.8% thought smoking will cause cancer and 21.4% thought smoking is injurious to health. After seeing the pictorial warning on cigarettes 57.6% respondents reduced the smoking number of sticks per day also attempted to quit smoking. A nine months’ cross-sectional descriptive study by Heydari GR et al.¹⁸ found that pictorial warning on cigarette packets causes 7.6% reduction of cigarette consumption. Brewer NT et al.⁽¹⁹⁾ and Noar SM et al.^{20,21} found that pictorial warning on cigarette packets increases the intention to quit, reduces consumptions of cigarettes and successfully quitting smoking and not to start smoking.

Conclusion:

Smoking being a dangerous practice but one of the leading causes of preventable health sufferings and death globally.

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Review article

The consequence of urban street children's lifestyle on their health status

Monowar Ahmad Tarafdar¹

Around 3.5 percent of the population migrates internally every year in Bangladesh. There are two major drivers behind this reality. People move to urban centres after losing village homes and livelihoods following disasters fuelled by climate change. They also come to the city seeking employments created by the rapid growth of the garment industry. A large proportion of migrants from villages end up in urban slums. Dhaka city has more than 5,000 slums inhabited by an estimated four million people.¹

A sea of tattered structure serves as home to thousands of poor families living in Bangladesh. Struggling to survive day to day, many children and their parents are garbage sorters. They search through fresh garbage heaps to collect resalable items for their existence. The problems of the slum children are universal. They are the part of the social tragedy; as economy grows, poverty, loss of traditional values, domestic violence, physical and mental abuse becomes more and more common.²

Urban areas offer great potential to secure children's rights and accelerate progress towards the Millennium Development Goals (MDGs). Cities attract and generate wealth, jobs and investment, and are therefore associated with economic development. The more urban a country, the more likely it is to have higher incomes and stronger institutions. Children in urban areas are often better off than their rural counterparts thanks to higher standards of health, protection, education and sanitation. But urban advances have been uneven, and millions of children in marginalized urban settings confront daily challenges and deprivations of their rights.³

It is obvious from study that general poverty lies at the center of the increasing number of street children and street life makes the children vulnerable to a variety of problems including ill health.⁴

The urban population is rapidly expanding because of mass population migration to cities for a possible better life. The cities and towns are also expanding but the sheer volume of people compromises the ability of the city to meet their basic needs. A large proportion of the migrating population ends up residing in slums in inhuman conditions. As a result, urban poverty and hunger are increasing in developing countries like Bangladesh. Lack of basic amenities like safe drinking water, proper housing, drainage and excreta disposal make this population vulnerable to infectious diseases which further compromises the nutrition of those living

in the slums.⁵

It is projected that half of the Bangladeshi population will live in urban areas by 2020 and nearly one third of this urban population will be slum dwellers. The ongoing process of rapid urbanization has deleterious effects on health and nutrition and social problems especially for the children.⁶

The presence of children living on the slum has elicited emotive public concern, been given considerable media coverage, and in the late twentieth century, has been a matter of priority for national and international child welfare organizations. There is a worldwide growing concern about the slum children.⁷

Researches of the worldwide problem have sought to explain the root causes of this phenomenon, have summarized the identifying characteristics of slum children worldwide, and have documented the dire consequences of a slum lifestyle for children's health and development.⁸

The poor sanitary condition in the crowded urban neighborhoods and the inadequate waste disposal was favorable for the spread of infectious diseases like tuberculosis, pneumonia, and diarrhea. It is also evident that death rate among households of poor children in Latin America, Africa and Asia was exponentially higher than in the Western Europe households or in the United States of America. It is also suggested that policy making must bring into consideration the health factor to curb the grave effects on health caused by urbanization.⁹

The slums of the cities of most developing countries has become the home for children accompanied by adults and leading an aimless existence, living by what they can obtain from hands-out, waste collecting, doing menial jobs, or by the way of stealing.¹⁰

Substance abuse, commercial sex, and other form of illegal and antisocial activities are common, resulting in regular conflicts with law. Exploiting by drug cartels, prostitution rings and similar illegal network is common.¹¹

The problem has reached a situation where "children in especially difficult circumstances have come to be listed among the priorities for action at the World Summit for Children. Programs aimed at slum children have moved progressively from the domain of charitable activities to social and health services.¹²

There is a growing international concern regarding problem of the rising numbers of slum children in urban areas, mostly within the developing world. This has

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translated into the increasing number of governmental and non-governmental organizations through the world whose main activity is to help alleviate the plight of slum children. They are seen to lack primary socialization and modeling framework of the family that thought to foster healthy growth and development. As such they are seen to be developmentally at risk.¹³

The term slum children itself has almost disappeared from the welfare and analytic literature, which now uses different appellations to refer to slum children and other underprivileged groups. Children themselves, of course, are still on the streets, easily visible in the great majority of urban centers. What has been called the global or “worldwide phenomenon of slum children” has neither vanished from sight nor effectively has been solved. However, current perspectives tend not to demarcate slum children so radically from other poor children in urban centers or to conceptualize the homeless in isolation from other groups of children facing adversely. Welfare agencies now talk of “urban children at risk”, which conceptualizes slum children as one of a number of groups most at risk and requiring urgent attention.¹⁴

Slum children constitute a marginalized group in most societies. They do not have what society considers appropriate relationships with major institutions of childhood such as family, education and health. The Encyclopedia of Public Health defines marginalized groups as, ‘To be marginalized is to be placed in the margins, and thus excluded from the privilege and power found at the center’. Latin observes that “‘Marginality’ is so thoroughly demeaning, for economic well-being, for human dignity, as well as for physical security. Marginal groups can always be identified by members of dominant society, and will face irrevocable discrimination.”¹⁵

The continuous exposure, to harsh environments and the nature of their lifestyles make them vulnerable to substance abuse and this threatens their mental, physical, social and spiritual wellbeing.¹² In many regions, most of these children are confronted with discrimination and view health and social services with suspicion. They live a transitory lifestyle and are vulnerable to inadequate nutrition, physical injuries, substance use, and health problems including sexual and reproductive health problems. These factors reduce the effectiveness of interventions that target slum children.¹⁶

Large groups of children unsupervised by adults have appeared in almost every country during some part of history. Most are found in large, urban areas of developing countries. The problem has worsened across the globe in recent years. Several related economic, social and political factors have been linked with the phenomenon of slum children. Land reform, population growth, drought, rural to urban migration, economic

recession, unemployment, poverty, and violence have all been implicated.¹⁷

The term “Street children” came under general use after the United Nations year of the child 1979.¹⁵ Before this the street children were referred s homeless and abandoned, or runaways. Most definitions of slum children concentrate on just two characteristics: presence on the slum and contact with the family. The most common definition of a street child or youth is “any girl or boy who has not reached adulthood, for whom the street (in the broadest sense of the word, including unoccupied dwellings, wasteland, etc.) has become her or his habitual abode and/or sources of livelihood, and who is inadequately protected, supervised or directed by responsible adults” (Inter-NGO, 1985). This definition was formulated by Inter-NGOs in Switzerland in 1983.¹⁸ Children on the slum: “Home based” children who spend much of the day on the street but have some family support and usually return home at night. Children of the street: “Street based” children who spend most of the days and nights on the street and are functionally without family support. The UNICEF definition was developed with Latin America in mind, where studies suggest that 80% to 90% of slum children have some contact with their family. It may be inappropriate for some countries like India, where often whole families remain on the street.¹⁹

As consequences of where and how the children are forced to live, many health hazards are a fact of life for street children. Findings food for is a constant source of struggle for street children, eat scavenged food such as vegetables from open air stalls, and eggs, bread, and meat discarded by restaurants. Consequently, they suffer from many intestinal ailments that can lead to death.²⁰

Street children are often found in busy places such as railway stations, bus stations, in front of film or night clubs, with no adult supervision, sleeping in half-destroyed houses, abandoned basements, under bridges and in open air. To survive they have been seen to roam the streets of urban areas begging and looking for jobs in order to obtain food and other basic necessities. They usual work in poor conditions, dangerous to their health, and starve some days. Therefore, street children survive on the streets through conventional and unconventional ways such as rubbish picking, shoe shining, flower selling, petty crimes, drug abuse, begging, panhandling, prostitution, petty theft; and drug trafficking. They also develop passive and aggressive attitudes, replacing their families with street gangs and experiencing social, sexual, physical and emotional abuse.²¹

The United Nations has been attributed as estimating the population of slum children worldwide at 150 million, with the number rising daily. These young people are

more appropriately known as community children, s they are the offspring of our communal world. Ranging in age from three to eighteen, about 40% of those are homeless as a percentage of world population, unprecedented in the history of civilization. The other 60% work on the slum to support their families. They are unable to attend school and are considered to live in “especially difficult circumstances”. Increasingly, these children are the defenseless victims of brutal violence, sexual exploitation, abject neglect, chemical addiction, and human rights violation.²²

Slum children are the children of the poorest people of Bangladesh. They live, grow up and work on the margins of the society in a state of neglect and deprivation. They lack protection, education, affection, care and proper guidance from adults.²³

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Review article

Wilson's Disease in Children : An Update

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Anamika Roy,⁶ Tanvir Ahmeed⁷

Abstract

Wilson's Disease is an autosomal recessive disorder of copper metabolism due to ATP7B gene defect. This defect result in progressive toxic accumulation of copper in liver, CNS, cornea, skeletal system and other organs. Clinical presentations of Wilson's disease (WD) in childhood ranges from asymptomatic liver disease to cirrhosis or acute liver failure, whereas neurological and psychiatric symptoms are rare. The basic diagnostic approach includes serum ceruloplasmin and 24-hour urinary copper excretion. Final diagnosis of WD can be established using a diagnostic scoring system based on symptoms, biochemical tests assessing copper metabolism, and molecular analysis of mutations in the ATP7B gene. Pharmacological treatment is life-long and aims at removal of copper excess by chelating agents as D-penicillamine, trientine or inhibition of intestinal copper absorption with zinc salts. Acute liver failure often requires liver transplantation. Genetic therapy and haplocyte transplantation represent future curative treatment for Wilson's disease.

Key Words: children, diagnosis, hepatitis, liver, treatment, Wilson's disease

Introduction:

Wilson's disease (WD) is a rare autosomal recessive disorder of copper metabolism. It was first described in 1912 by Kinneer Wilson as "progressive lenticular degeneration", a familial, lethal neurological disease accompanied by chronic liver disease leading to cirrhosis.¹ It is generally accepted that the disorder is related to excessive accumulation of copper in the liver, CNS, cornea, skeletal system and other organs. The worldwide prevalence of Wilson's disease is estimated to be 1 in 30,000, with a gene frequency of 0.56% and a carrier frequency of 1 in 90.²

Molecular genetics

A mutation in the ATP7B gene, located on chromosome 13, is responsible for Wilson's disease. Absent or reduced function of ATP7B protein leads to decreased hepatocellular excretion of copper into bile.^{3,4} This results in hepatic copper accumulation and injury. Eventually, copper is released into the bloodstream and deposited in other organs, notably the brain, kidneys, and cornea.⁵ Failure to incorporate copper into ceruloplasmin is an additional consequence of the loss of functional ATP7B protein. The hepatic production and secretion of the

ceruloplasmin protein without copper, apoceruloplasmin, result in the decreased blood level of ceruloplasmin found in most patients with WD due to the reduced half-life of apoceruloplasmin.^{5,6}

Liver pathology

Liver is the major organ for storage of copper.⁷ Characteristic histologic findings are present but not pathognomonic. Fat deposition is one of the earliest changes seen in the liver biopsy specimen. Histologic features that are indistinguishable form of autoimmune chronic hepatitis develop, as well as hepatic necrosis. The electron microscopic, findings are then relatively normal, except for excessive morphus or globuler copper containing lipofuscin granules and lipid containing lysosoms.⁸

CLINICAL FEATURES IN PATIENTS WITH WILSON DISEASE^{9,10}

Hepatic

Asymptomatic hepatomegaly, Isolated splenomegaly, Persistently elevated serum aminotransferase activity (AST, ALT), Fatty liver, Acute hepatitis, Resembling autoimmune hepatitis, Cirrhosis: compensated or

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decompensated, Acute liver failure,

Neurological

Movement disorders (tremor, involuntary movements), Drooling, dysarthria, Rigid dystonia, Pseudobulbar palsy, Seizures,

Psychiatric

Depression, Neurotic behaviors, Personality changes, Psychosis

Other systems

Ocular: Kayser-Fleischer rings, sunflower cataracts; Cutaneous: lunulae ceruleae; Renal abnormalities: aminoaciduria and nephrolithiasis; Skeletal abnormalities:

premature osteoporosis and arthritis; Cardiomyopathy, dysrhythmias, Pancreatitis, Hypoparathyroidism, Menstrual irregularities; infertility, repeated miscarriages.

DIAGNOSIS^{11,12}

The diagnosis of Wilson disease is based on a very broad combination of laboratory tests and clinical features. The most useful laboratory tests for diagnostic purposes are those measuring 24-hour urinary copper excretion, hepatic copper concentration, serum free copper concentration and ceruloplasmin concentration. The diagnosis of WD may be made readily when the classic triad of hepatic diseases, neurologic involvement, and KF rings are present.¹³

ROUTINE TESTS FOR DIAGNOSIS OF WILSON’S DISEASE¹⁵

Tests	Typical findings	False “negative”	False “positive”
Serum ceruloplasmin		<ul style="list-style-type: none"> ➤ 4-20% of WD ➤ WD with marked hepatic inflammation ➤ Pregnancy ➤ Estrogen therapy in WD ➤ Ceruloplasmin assays using radial immunodiffusion ➤ Overestimation by immunologic assay 	<ul style="list-style-type: none"> ➤ Low levels in malsorption ➤ Severe malnutrition ➤ Acute liver failure of any etiology ➤ Hypoceruloplasminaemia or Aceruloplasminaemia ➤ 15-20% of WD carriers ➤ 25% of non WD chronic active hepatitis ➤ Normal neonates
24-hour urinary copper	>100 µg /day	<ul style="list-style-type: none"> ➤ Asymptomatic WD. ➤ Incorrect collection. ➤ Children without liver disease. 	<ul style="list-style-type: none"> ➤ Non WD chronic active hepatitis. ➤ Indian childhood cirrhosis ➤ Chronic cholestatic liver disease. ➤ Increased hepatocellular necrosis. ➤ Contamination
Serum “free” copper	>10 µg /dl	Normal if ceruloplasmin Overestimated by immunologic assay	
Hepatic copper	>250 µg /g dry weight	<ul style="list-style-type: none"> ➤ Duo to regional variation ➤ In patients with active liver disease. ➤ In patients with regenerative nodules ➤ Active liver disease 	<ul style="list-style-type: none"> ➤ Cholestatic syndromes ➤ Indian childhood cirrhosis ➤ Liver tumors ➤ Newborn liver

(Rukonuzzaman et al,2015)

Detection of symptom free homozygotes^{16,17}

Asymptomatic relatives specially sibling of patients with WD should be screened. They should have a

- Detailed history including hepatic, neurological, psychiatric symptoms.
- Ophthalmological examination (K-F rings).
- Laboratory studies including serum aminotransferases, serum ceruloplasmin, 24-hour urinary copper excretion and mutation analysis.

SCREENING OF ASYMPTOMATIC RELATIVES OF PATIENTS WITH WD

Mandatory

History and physical examination, Ophthalmological slit-lamp examination, Serum ceruloplasmin and copper estimations, Hepatic transaminase levels, 24-hour urinary copper excretion.

Additional

Blood smear for hemolysis, Reticulocyte count and haptoglobin, Urinary calcium level
Genetic analysis

(Jessica et al.,2008)

If any of the above is abnormal, liver biopsy becomes mandatory with examination of histology and measurement of quantitative liver copper content.^{17,18}

Diagnostic score in Wilson’s disease^{10,18}

Score	0	1	2	3
K-Frings	Absent		Present	
Neuropsychiatric Symptoms suggestive of WD (or typical br MRI)	Absent		Present	
Coombs-negative haemolytic anaemia+high serum copper	Absent	Present		
Urinary copper (in the absence of acute hepatitis)	Normal	1-2xULN		
LivercopperquantitativeRhodanine-positive hepatocytes (only if quantitative) measurement is not available	Absent	Present		
Serum ceruloplasmin	>0.2g/L	0.1-0.2g/L	<0.1g/L	
Mutation detected	None	1		2

MRI, Magnetic Resonance Imaging; ULN=upper limit of normal (Eisenbach et al., 2017)

TREATMENT¹⁹

With the exception of liver transplantation, treatment of Wilson’s disease is only palliative and intended to restore and maintain copper balance. Thus, a lifelong commitment to treatment is required.

Diet

WD cannot be prevented or controlled by low copper containing diet alone. Foods with very high concentrations of copper (shellfish, nuts, chocolate, mushrooms, and organ meats) generally should be avoided, at least in the first year of treatment along with drug treatment.²⁰

Drugs

Aim of drug therapy in WD is to restore and maintain copper balance for lifelong.

The entire treatment period can be divided into two phases.^{20,21}

Initial therapy

To reduce serum copper level in sub toxic level is the aim of this phase. This phase takes four to six months. Drugs of choice are D-penicillamine and Trientine .^{20,21}

Maintenance therapy

To prevent copper accumulation and toxicity, a slightly negative copper balance is maintained in this phase. After adequate treatment with a chelator, stable patients may be continued on a lower dosage of the chelating agent or shifted to treatment with zinc .^{21,22}

Liver transplantation

Liver transplantation is indicated for patients with acute fulminant hepatic failure from Wilson’s disease. Liver transplant is also indicated for patients Wilson’s disease in which medical therapy is ineffective as defined by a failure to stabilize and prevent progressive hepatic insufficiency.²²

Future therapy

Genetic therapy and haplocyte transplantation represent

future curative treatment for Wilson’s disease along with currently available liver transplantation. However both cell and liver transplantation need immunosuppression to maintain grafted cells.²²

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Case report

An unusual cause of postmenopausal bleeding: A case report

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Abstract:

A 55-year-old postmenopausal woman presented to the gynaecology clinic with a 1-week history of vaginal bleeding. She was investigated to rule out local and systemic causes including genital malignancy. The investigations were negative for genital malignancy and her symptoms settled with medical and surgical management. A short literature review of this unusual cause of postmenopausal bleeding is discussed here.

Key words: Post menopause, malignancy.

Introduction:

Postmenopausal bleeding is a frequent medical problem with a prevalence rate as high as 10% in the general population.^{1,2} The causes of postmenopausal bleeding include vaginal or endometrial atrophy, hormone replacement therapy (HRT), endometrial cancer, endometrial or cervical polyps, and endometrial hyperplasia.^{3,4} The most frequent malignancy found in cases of post-menopausal bleeding is endometrial cancer. Other causes of malignant post-menopausal blood loss can be carcinomas of a woman's genital tract (vagina, cervix, fallopian tubes or ovaries) or metastases from other tumors.^{5,6} Post-menopausal bleeding with a history of hysterectomy is rather uncommon.

In postmenopausal women, it is usually associated with atrophic vaginal wall which have an increased risk of rupture.⁷ Here we report a case of coitus-induced postmenopausal blood loss, who had undergone vaginal hysterectomy 2 years back.

Case report:

A 55-year-old postmenopausal woman was admitted into Z. H. Sikder Women's Medical College & Hospital on 2.4.19 with the complaints of per vaginal bleeding for 1 week. The bleeding was moderate in amount, painless and intermittent in nature. Her last sexual intercourse had been 7 days earlier, at which time she had experienced lower abdominal discomfort and slight vaginal bleeding. She denied any unusual or aggressive sexual intercourse or use of sex toys.

She had no history of abdominal pain, fever, chills, night sweats, nausea, vomiting, weight loss, change in appetite or bowel habits. She had no history of any hormone replacement therapy.

The cause of the blood loss was initially interpreted as vaginal atrophy which was unsuccessfully treated with estriol cream in another hospital. She denied any history of smoking, alcohol or drug abuse and has no known family history of malignancy. She was para 6 and all were vaginal delivery at home. She was non-diabetic and normotensive. Two years back, she underwent vaginal hysterectomy with pelvic floor repair because of second-degree uterine prolapse with mild rectocele.

General examination revealed she was 44 kg, mildly anemic and her thyroid was normal and no palpable lymph nodes. Examination of the breasts were unremarkable. All hernial orifices were clear. CVS, CNS and RS examinations were within normal limits. She had no ascites, hepatosplenomegaly or palpable mass on abdominal examination.

On vaginal speculum examination, two crater-shaped lesions were found in the right and left upper parts of the vagina, which indurated the surrounding tissue, with some necrosis. Rectal examination showed no abnormalities.

On laboratory results, hemoglobin was 10.5 g/dl (after 1 unit blood transfusion), CA-125 was 16 ng/dl, Serum CEA was normal, RBS was 5.1 mmol/l, serum creatinine was 0.5 mg/dl. Ultrasound of abdomen and pelvis showed nothing abnormality. A mammogram 1 year ago was reported as normal and her last pap smear was 1 year ago and was normal.

After preoperative investigations, examination under anesthesia and biopsy was decided upon in order to determine any malignancy. During the procedure, vault revealed healthy but there were two tears measuring about 3×2 cm on right angle and 2×1 cm on the left angle of the

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vault. Biopsy was taken from both angles of vault. The tears were repaired with absorbable suture.

Vault was also inspected under acetic acid (VIA test). As it was negative, so no biopsy was taken from vault. The next day she was discharged with oral antibiotics. Three days after she came with the histopathology report, which revealed inflammatory cells of vagina only. And there was no further bleeding. We followed up her one month later and found her without any bleeding and happy.



Figure1: Per operative view of the vault with right corner lesion



Figure2: Lesion in the left corner of the vault



Figure3: repairing of the lesion

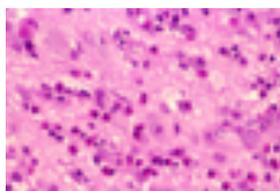


Figure 4: Histopathological examination of the tissue showed inflammatory cells of vagina.

Discussion:

Post-menopausal vaginal bleeding is a common complaint of patients seen in gynecological practice. It accounts for approximately 5% of all gynecological visits. Every case of post-menopausal bleeding is abnormal and should be investigated for any malignancy until proven otherwise.⁸ Yuce et al. identified 12 cases of vaginal cuff eversion resulting from coitus and 9 of these cases were post-vaginal hysterectomy.⁹

Postmenopausal bleeding of any amount necessitates a thorough investigation to rule out a genital malignancy. This case report illustrates an unusual cause in a postmenopausal woman, though such a history should not make the gynaecologist defer a thorough investigation for the vaginal bleeding.

The incidence of vaginal rupture after any type of pelvic surgery is 0.03 percent with the reported incidence of cuff dehiscence after a hysterectomy being higher after laparoscopic hysterectomy compared with abdominal or vaginal hysterectomies.^{11,12} Among the 7286 hysterectomies collection by Hur, an incidence of 0.14% was reported (total and subtotal), with a peak rate of 4.93% after laparoscopic hysterectomy.¹² Another single institution case study (Iaco on 3593 hysterectomies) reports a rate of 0.28%, without the evidence of statistical difference between different routes of access (trans-

abdominal & trans-vaginal).¹³

Conclusion:

Post-menopausal blood loss in a patient with a history of hysterectomy is uncommon and always needs further investigation to exclude all the probable causes including malignancy. Post-menopausal blood loss in a patient with a history of hysterectomy is uncommon and always needs further investigation.

Post-menopausal blood loss in a patient with a history of hysterectomy is uncommon and always needs further investigation.

Post-menopausal blood loss in a patient with a history of hysterectomy is uncommon and always needs further investigation.

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10. Nereo Vettoreto, Luca Balestra, Lucio Taglietti, Maurizio Giovannetti: Transvaginal eversion after laparoscopic adrenalectomy in neurofibromatosis. *Journal of Emergencies, Trauma and Shock* 2010, 3(2):204-205.
11. Croak AJ, Gebhart JB, Klingele CJ, et al: Cuff characteristics of patients with vaginal rupture and eversion. *Obstet Gynecol* 2004, 103:572.
12. Hur HC, Guido RS, Mansuria SM, Hacker MR, Sanfilippo JS, Lee TT: Incidence and patient characteristics of vaginal cuff dehiscence after different modes of hysterectomies. *J Minim Invasive Gynecol* 2007, 14:311-7.
13. Iaco PD, Ceccaroni M, Alboni C, Roset B, Sansovini M, D'Alessandro L, et al: Transvaginal eversion after hysterectomy: Is vaginal cuff closure associated with a reduced risk?

GENERAL INSTRUCTIONS FOR THE AUTHORS

The minimum requirements for manuscripts submitted for publication:

The manuscript should be prepared according to the modified Vancouver style as proposed by the International Committee of Medical Journal Editors (ICMJE). The entire Uniform Requirements document was revised in 1997 which is available in the Journal of American Medical Association (JAMA.1997; 277:927-934) and is also available at the JAMA website. Sections were updated in May 1999 and May 2000. The following section is based mostly on May 2000 update.

THREE COPIES of the manuscript should be sent in a heavy paper envelope. Manuscripts must accompany a covering letter signed by all authors. This must include (i) information on prior or duplicate publication or submission elsewhere of any part of the work as defined earlier in this document; (ii) a statement of financial or other relationships that might lead to a conflict of interest; (iii) a statement that the manuscript has been read and approved by all the authors, that the requirements for authorship have been met; and (iv) the name, address and telephone number of the corresponding author, who is responsible for communicating with the other authors about revisions and final approval of the proofs. The letter should give any additional information that may be helpful to the editor.

A good quality compact disc (CD) must accompany the printed copies of the manuscript containing an electronic copy of the manuscript prepared in Microsoft Word 6.0 or later version.

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BEGIN, ON A NEW PAGE, each section or component with following sequence: title page, abstract and key words, text, acknowledgments, references. Tables, figures and illustrations may be positioned within the text where they should appear.

The TEXT of observational and experimental articles is usually divided into sections with the headings of Introduction, Methods, Results, and Discussion. Long articles may need subheadings within some sections (especially within the Results and Discussion sections) to clarify their content. Other types of articles, such as case report, review, and editorial, are likely to need other formats.

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Below the abstract, authors should provide 3 to 10 KEY WORDS or short phrases that will assist indexers in cross-indexing the article and that may be published with the abstract. Terms from the medical subject headings (MESH) list of Index Medicus should preferably be used.

INTRODUCTION should state the purpose of the article and summarize the rationale for the study or observation. Give only strictly pertinent references and do not include data or conclusions from the work being reported.

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In RESULTS section, when data are summarized, specify the statistical methods used to analyze them. Present your results in a logical sequence in the text, tables, and illustrations. Do not repeat in the text all the data in the tables or illustrations; emphasize or summarize only important observations. Restrict tables and figures to those needed to explain the argument of the paper and to assess its support. Use graphs as an alternative to tables with many entries; do not duplicate data in graphs and tables. Number tables consecutively in the order of their first citation in the text, and supply a brief title for each. Give each column a short or abbreviated heading. Place explanatory matter in footnotes, not in the heading. Identify statistical measures of variations such as standard deviation and standard error of the mean. Do not use internal horizontal and vertical rules. Be sure that each table is cited in the text. Figures should be professionally drawn and photographed. Supply raw data in separate page so that the figures may be redrawn. For x-ray films, and other material, send sharp, glossy, black-and-white photographic prints, usually 127 x 173 mm (5 x 7 in) but no larger than 203 x 254 mm (8 x 10 in).

In DISCUSSION, emphasize the new and important aspects of the study and the conclusions that follow from them. Do not repeat in detail data or other material given in the Introduction or the Results section. Include in the Discussion section the implications of the findings and their limitations, including implications for future research. Relate the observations to other relevant studies.

Link the CONCLUSIONS with the goals of the study, but avoid unqualified statements and conclusions not completely supported by the data. State new hypotheses when warranted, but clearly label them as such. Recommendations, when appropriate, may be included.

ACKNOWLEDGMENTS may go as an appendix to the text, one or more statements may specify (i) contributions that need acknowledging but do not justify authorship, such as general support by a departmental chair; (ii) acknowledgments of technical help; (iii) acknowledgments of financial and material support, which should specify the nature of the support.

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Standard journal article:

List the first six authors followed by et al. (Note: NLM now lists up through 25 authors; if there are more than 25 authors, NLM lists the first 24, then the last author, then et al.)

Vega KJ, Pina I, Krevsky B. Heart transplantation is associated with an increased risk for pancreatobiliary disease. *Ann Intern Med* 1996 Jun 1; 124 (11): 980-3.

More than six authors:

Parkin DM, Clayton D, Black RJ, Masuyer E, Friedl HP, Ivanov E, et al. Childhood leukemia in Europe after Chernobyl: 5 year follow-up. *Br J Cancer* 1996; 73: 1006- 12.

Organization as author:

The Cardiac Society of Australia and New Zealand. Clinical exercise stress testing. Safety and performance guidelines. *Med J Aust* 1996; 164: 282-4.

No author given:

Cancer in South Africa [editorial]. *S Afr Med J* 1994; 84:15.

Article not in English:

(Note: NLM translates the title to English, encloses the

translation in square brackets, and adds an abbreviated language designator.) Ryder TE, Haukeland EA, Solhaug JH. Bilateral infrapatellar seneruptur hostidligere frisk kvinne. Tidsskr Nor Laegeforen 1996; 116:41-2.

Volume with supplement:

Shen HM, Zhang QF. Risk assessment of nickel carcinogenicity and occupational lung cancer. Environ Health Perspect 1994; 102 Suppl 1:275-82. Issue with supplement:

Payne DK, Sullivan MD, Massie MJ. Women's psychological reactions to breast cancer. Semin Oncol 1996; 23(1 Suppl 2): 89-97.

Volume with part:

Ozben T, Nacitarhan S, Tuncer N. Plasma and urine sialic acid in non-insulin dependent diabetes mellitus. Ann Clin Biochem 1995; 32(Pt 3): 303-6.

Issue with part:

Poole GH, Mills SM. One hundred consecutive cases of flap lacerations of the leg in ageing patients. N Z Med J 1994; 107(986 Pt 1): 377-8.

Issue with no volume:

Turan I, Wredmark T, Fellander-Tsai L. Arthroscopic ankle arthrodesis in rheumatoid arthritis. Clin Orthop 1995; (320): 110-4.

No issue or volume:

Browell DA, Lennard TW. Immunologic status of the cancer patient and the effects of blood transfusion on antitumor responses. Curr Opin Gen Surg 1993:325-33.

Pagination in Roman numerals:

Fisher GA, Sikic BI. Drug resistance in clinical oncology and hematology. Introduction. Hematol Oncol Clin North Am 1995 Apr; 9(2): xi-xii.

Type of article indicated as needed:

Enzensberger W, Fischer PA. Metronome in Parkinson's disease [letter]. Lancet 1996; 347:1337. Clement J, De Bock R. Hematological complications of Hantavirus nephropathy (HVN) [abstract]. Kidney Int 1992; 42:1285.

Article containing retraction:

Garey CE, Schwarzman AL, Rise ML, Seyfried TN. Ceruloplasmin gene defect associated with epilepsy in EL mice [retraction of Garey CE, Schwarzman AL, Rise ML, Seyfried TN. In: Nat Genet 1994; 6:426-31]. Nat Genet 1995; 11:104.

Article retracted:

Liou GI, Wang M, Matragoon S. Precocious IRBP gene expression during mouse development [retracted in Invest Ophthalmol Vis Sci 1994; 35:3127]. Invest Ophthalmol Vis Sci 1994; 35:1083-8.

Article with published erratum:

Hamlin JA, Kahn AM. Herniography in symptomatic patients following inguinal hernia repair [published erratum appears in West J Med 1995; 162:278]. West J Med 1995; 162:28-31.

BOOKS AND OTHER MONOGRAPHS

(Note: Previous Vancouver style incorrectly had a comma rather than a semicolon between the publisher and the date.)

Personal author(s):

Ringsven MK, Bond D. Gerontology and leadership skills for nurses. 2nd ed. Albany (NY): Delmar Publishers; 1996.

Editor(s), compiler(s) as author:

Norman IJ, Redfern SJ, editors. Mental health care for elderly people. New York: Churchill Livingstone; 1996.

Organization as author and publisher:

Institute of Medicine (US). Looking at the future of the Medicaid program. Washington: The Institute; 1992.

Chapter in a book:

(Note: Previous Vancouver style had a colon rather than a p before pagination.) Phillips SJ, Whisnant JP. Hypertension and stroke. In: Laragh JH, Brenner BM, editors. Hypertension: pathophysiology, diagnosis, and management. 2nd ed. New York: Raven Press; 1995. p. 465-78.

Conference proceedings:

Kimura J, Shibasaki H, editors. Recent advances in clinical neurophysiology. Proceedings of the 10th International Congress of EMG and Clinical Neurophysiology; 1995 Oct 15-19; Kyoto, Japan. Amsterdam: Elsevier; 1996.

Conference paper:

Bengtsson S, Solheim BG. Enforcement of data protection, privacy and security in medical informatics. In: Lun KC, Degoulet P, Piemme TE, Rienhoff O, editors. MEDINFO 92. Proceedings of the 7th World Congress on Medical Informatics; 1992 Sep 6-10; Geneva, Switzerland. Amsterdam: North-Holland; 1992. p. 1561-5.

Scientific or technical report:

Issued by funding/sponsoring agency: Smith P, Golladay K. Payment for durable medical equipment billed during skilled nursing facility stays. Final report. Dallas (TX): Dept. of Health and Human Services (US), Office of Evaluation and Inspections; 1994 Oct. Report No.: HHSIGOEI69200860. Issued by performing agency: Field MJ, Tranquada RE, Feasley JC, editors. Health services research: work force and educational issues. Washington: National Academy Press; 1995. Contract No.: AHCPR282942008. Sponsored by the Agency for Health Care Policy and Research. Dissertation:

Kaplan SJ. Post-hospital home health care: the elderly's

access and utilization [dissertation]. St. Louis (MO): Washington Univ.; 1995.

Patent: Larsen CE, Trip R, Johnson CR, inventors; Novoste Corporation, assignee. Methods for procedures related to the electrophysiology of the heart. US patent 5,529,067. 1995 Jun 25.

Other Published Material

Newspaper article:

Lee G. Hospitalizations tied to ozone pollution: study estimates 50,000 admissions annually. *The Washington Post* 1996 Jun 21; Sect. A: 3 (col. 5).

Audiovisual material:

HIV+/AIDS: the facts and the future [videocassette]. St. Louis (MO): Mosby-Year Book; 1995.

Legal material:

Public law:

Preventive Health Amendments of 1993, Pub. L. No. 103-183, 107 Stat. 2226 (Dec. 14, 1993).

Un enacted bill:

Medical Records Confidentiality Act of 1995, S. 1360, 104th Cong., 1st Sess. (1995).

Code of Federal Regulations:

Informed Consent, 42 C.F.R. Sect. 441.257 (1995).

Hearing:

Increased Drug Abuse: the Impact on the Nation's Emergency Rooms: Hearings Before the Subcomm. On Human Resources and Intergovernmental Relations of the House Comm. on Government Operations, 103rd Cong., 1st Sess. (May 26, 1993).

Map:

North Carolina. Tuberculosis rates per 100,000 population, 1990 [demographic map]. Raleigh: North Carolina Dept. of Environment, Health, and Natural Resources, Div. of Epidemiology; 1991.

Book of the Bible:

The Holy Bible. King James Version. Grand Rapids (MI): Zondervan Publishing House; 1995. Ruth 3:1-18.

Dictionary and similar references:

Stedman's medical dictionary. 26th ed. Baltimore: Williams & Wilkins; 1995. Apraxia; p. 119-20.

Classical material:

The Winter's Tale: act 5, scene 1, lines 13-16. The complete works of William Shakespeare. London: Rex; 1973.

UNPUBLISHED MATERIAL

In press:

(Note: NLM prefers "forthcoming" because not all items will be printed.) Leshner AI. Molecular mechanisms of

cocaine addiction. *N Engl J Med*. In press 1996.

ELECTRONIC MATERIAL

Journal article in electronic format: Morse SS. Factors in the emergence of infectious diseases. *Emerg Infect Dis* [serial online] 1995 Jan-Mar [cited 1996 Jun 5]; 1(1): [24 screens]. Available from: URL: <http://www.cdc.gov/ncidod/EID/eid.htm>

Monograph in electronic format:

CDI, clinical dermatology illustrated [monograph on CD-ROM]. Reeves JRT, Maibach H. CMEA Multimedia Group, producers. 2nd ed. Version 2.0. San Diego: CMEA; 1995.

Computer file:

Hemodynamics III: the ups and downs of hemodynamics [computer program]. Version 2.2. Orlando (FL): Computerized Educational Systems; 1993.

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