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From the Editor

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This issue of the journal is rich with papers from different countries in the region. A cross sectional study from Qatar looked at the prevalence and predictors of asymptomatic bacteriuria in pregnant women attending antenatal clinic at the primary health care centers in Qatar. Of the 433 pregnant women, 43 had significant bacteriuria giving a prevalence rate of 9.9%. The authors found that the prevalence of asymptomatic bacteriuria in pregnant women attending primary health care centers in Qatar is 9.9%, and the predominant organism was E.coli. The current screening for asymptomatic bacteriuria in pregnant women attending antenatal clinic at primary care, should focus on anemic pregnant women and those with a history of urinary tract infection.

Another study designed to determine whether outpatient administration of vaginal misoprostol safely decreases the incidence of post term pregnancies was conducted by authors from Shahid Beheshti University of medical science, Tehran, Iran and found that Misoprostol was associated with a significant decrease in mean time to delivery.

A paper from Bangladesh looked at the negative consequences of early first childbirth. The authors attempted to estimate the extent of early first birth (at adolescence) and that to find ever married adolescent women's pattern of giving first childbirth (first birth intervals since marriage). This study also examines some selected covariates' impact on timing of the first birth. The authors concluded that lengths of ever married adolescent women's first birth are very short in Bangladesh. Newly married adolescent women (also their husbands) should be encouraged to use contraceptives which are relevant to spacing births.

A paper from Iran reviewed the health status of Iranian children and some aspects of sexual differences as the journey in life from birth to child period. The authirs found there is no significant difference between male and female children in Iran from standpoint of health, but more information is still needed about their social supports and security.

A paper from Kuwait looked at the effect of health literacy on health outcomes. Due to the vast growth of knowledge in the medical and nursing fields and the increased demand on patients to comprehend communicated health information and effectively comply with treatment regimens, health literacy promotion has become the current trend in health care in the United States. The author report that this research proposal examines the effect of the level of health literacy on the hospitalization rate and health-promoting behaviors among the chronically ill patients who live in Kuwait.

A paper from Libya looked the guidelines, development and impact of a Poster. The author stressed that scientific posters are an effective oral communication tool for demonstration, and explanation as they serve a short way of verbal presentation combined with visual aid. They should provide the important component in terms of its content, and the way constructed to influence the overall effectiveness. They should be visually attractive and easy to read and understand within few minutes, plus they should be short, simple.

A rare case report from Kuwait described a patient with type 1 b pseudohypoparathyroidism complicated by hypocalcemic dilated cardiomyopathy. The authors stressed that a number of endocrine disorders show the symptoms of cardiac failure. Hypocalcemic dilated cardiomyopathy secondary to hypoparathyroidism is a well known, albeit rare, cause of heart failure. The patient is a 14 - year old girl complicated by sever congestive heart failure induced by severe chronic hypocalcemia. Although the patient showed a significant clinical improvement after calcium supplementation, her follow up echocardiograms showed no such improvement.

Adolescents and Their Timing of First Birth: Evidence from Bangladesh Demographic and Health Survey-2004

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ABSTRACT

Purpose: Considering the negative consequences of early first childbirth in Bangladesh, in this study, attempts have been made to estimate the extent of early first birth (at adolescence) and to find ever married adolescent women's pattern of giving first childbirth (first birth intervals since marriage). This study also examines some selected covariates' impact on timing of the first birth.

Process: Using data from Bangladesh Demographic and Health Survey (BDHS)-2004, for examining some covariates' impacts on timing of ever married adolescent women's first birth, this study used the Cox proportional hazard model.

Findings: Estimates show that more than 53% of ever married adolescent women had a first childbirth in Bangladesh in 2004. The percentage of ever married adolescent women who gave birth is lower in urban areas than rural areas. The estimated median length of first birth intervals was 20 months at national level, and those of first birth intervals were 18 months and 20 months at urban and rural areas respectively in Bangladesh. Analysis shows that ever married adolescent women who resided in urban areas have shorter first birth intervals than those ever married adolescent women who resided in rural areas; and age at marriage has statistically significant impact on timing of first birth.

Conclusion: Lengths of ever married adolescent women's timing of first birth after marriage are very short in Bangladesh. Chittagong division and urban areas should pay more consideration to lengthening duration between marriage and first birth. Encouragement should be given to newly married adolescent women (also their husbands) to use contraceptives which are relevant to spacing births.

Keywords: Adolescent, Bangladesh, first birth.

Introduction

Motherhood or first childbirth is the most important event in women's life. Timing of motherhood or age at first birth has different effects on birth outcome, on the health conditions of the mother herself and also on her child's health. Early childbearing, for example, first childbirth at adolescence (age 10-19 years), and first childbirth after adolescence can be seen as having different effects[1].

Comparing women who are older than 19 years, adolescent (aged 10-19 years) women are at greater risk for poor maternal conditions and birth outcomes and also young mothers are more likely to suffer pregnancy related complications and to die in childbirth, than women of age 20 years or more[2]. Women who have their first child early in their life are more likely to have more children than those women who start childbearing later[3]. In Bangladesh, early marriage and early pregnancy (at adolescence) are common. Early pregnancy (in Bangladesh) means early childbirth, because 90% of pregnancies result in a live birth and the remaining 10% result in miscarriage/abortion, stillbirth and/or menstrual regulations (MRs) in Bangladesh[4]. Mean age at first marriage for adolescent girls and for women aged 10-49 years are 14.35 years and 15.01 years respectively, and mean age at first childbirth for married adolescent women and for ever married women aged 10-49 are 15.68 years and 17.40 years respectively in Bangladesh (own calculation using data from the Bangladesh Demographic and Health Survey (BDHS-2004). Proportion of adolescent women who are mothers or are currently pregnant is the highest (about 35%) in Bangladesh among the Asian countries5. According to data of BDHS-2004, only 29.1% of 10-14 years ages and 42.2% of 15-19 years ages of currently married adolescent women (adolescents who are cohabiting with their husbands) respectively, were using any contraceptive method in Bangladesh.

In a society, like Bangladesh, where childbearing is socially sanctioned after marriage, the lengths of first birth interval affect the complete family size[6] and also infants' and children's survival depends on their mothers characteristics. First birth is considered as one of the child survival risk categories (CSRC)[4]. Women, whose first births were early (<18 years) are more likely to give 2nd birth within very short birth intervals (less than 24 months)[7]. Births at age less than 18 years and birth intervals less than 24 months are also considered as one of the CSRC, and child's risks of dying and other health complications are further raised for the child born to a mother who has a combination of CSRC[4]. Complications related to pregnancy and childbirth found the important cause of death among girls aged 15-19 years in developing countries, and early marriage for females and early motherhood are very common in Bangladesh compared to other south Asian countries8. But, mothers aged 14 years and/or less than 14 years face the greatest risks. Findings from one study in Bangladesh by Chen Lincoln C. et al. concluded that

mothers aged 10-14 years may face the risk of maternal mortality five times more compared to mothers aged 20-24 years[9].

Considering high incidence of first birth at early ages and the negative consequences of early first birth, in Bangladesh, there is a need to unfold differentials in timing of EMAW's first birth regarding various covariates possessed by them. This study expects to estimate the extent of early first birth and pattern of giving first childbirth (since marriage) by ever married adolescent women and then to examine some selected covariates' impact on timing of the event (first birth) of EMAW and to mark the disparities in the event (first birth) of EMAW with respect to socio-demo-cultural characteristics (covariates) possessed by them. All of which, stated above, may be helpful for policy makers, program managers/ donor agencies to make/support appropriate programs for the well being of women (which is also advantageous for infants' and children's good health) and also for decreasing family size, in Bangladesh.

Data

For analyzing fertility behavior such as pattern of giving first birth, in the society of Bangladesh, it is evident to consider married women exposed to first birth after their first marriage. In this study, ever married adolescent women (EMAW) - married adolescents including widowed, divorced and separated- are included for analyzing their first childbirth pattern from their marriage date to the end of the study period. For analyzing time to the event (first birth) of EMAW, data comes from Bangladesh Demographic and Health Survey (BDHS) - 2004. After excluding missing cases and pre-marital first birth (only one in this study), 1,629 EMAW were included in the study. Among those 1,629 EMAW, 874 EMAW have faced the event of first birth from their marriage date to the end of study period (as of May 2004).

Extent of early first birth in Bangladesh

For developing ing EMAW's (who have given childbirth) profile with age and age at first birth, data have been extracted from Bangladesh Demographic and Health Survey-2004. Among the ever married adolescent women (EMAW) more than 53% of them had a first childbirth in Bangladesh in 2004. The percentage of EMAW who gave birth is lower in urban areas than rural areas. Percent distribution of EMAW with first birth is provided in Table 1. About 12% of EMAW of the study population have given first birth in their early adolescence (10-14 years) in Bangladesh. The percentages of EMAW who gave birth were highest at the age of 15 years, 16 years and 15 years for urban areas, rural areas and national (Bangladesh as a whole) respectively (Figure 1).

Pattern of first birth intervals

The pattern of first birth intervals (since first marriage), according to residence, urban or rural, with corresponding medians of intervals are provided in Table 2. The estimated median length of first birth intervals was 20 months at national level, and those of first birth interval were 18 months and 20 months at urban and rural areas respectively in Bangladesh. About 70% of urban EMAW and 63% of rural EMAW gave their first birth within two years of their marriage (Table 2 and Figure 2).

Statistical analysis

To explain why certain individuals are higher or lower risks of experiencing one event of interest than others, can be accomplished by the method of Cox proportional hazard model. The Cox proportional hazard model10 for censored non-occurrence event /survival data specifying time specific hazard rate or failure rate or occurrence rate of the event as $\lambda(t) = 1im\ h \rightarrow 0\ Pr(T \leq t + h|\ T > t)/h$ for non-occurrence or survival time T of individuals with covariates x_{1j}, x_{2j},……, xnj (e.g. binary, categorical or continuous and these covariates may depend on time or not) to have the following form

$$\lambda(t; x) = \lambda_0(t) \exp (B_{1j}X_{1j} + B_2X_{2j} + \ldots \ldots \ldots \ldots \ldots + B_{nj}X_{nj}), \text{ for } t \geq 0 \quad (1)$$

Where, B_{1j}, B_{2j}, ... , Bnj are non-standardized regression coefficients, j represents the number of groups or categories of the respective covariate, $\lambda_0(t)$ is the baseline hazard function. Let us consider survival time for any event of interest with only one covariate, for example, x_{1j} with two categories (j = 1, 2) and values of that two categories are 0 (x_{11} = 0) and 1 (x_{12} = 1), equation (1) becomes

for x_{12} = 1

$$\lambda(t; x = 1) = \lambda_0(t) \exp(B_{12}) \ldots \ldots \ldots (2)$$

and for x_{11} = 0

$$\lambda(t; x = 1) = \lambda_0(t) \ldots \ldots \ldots \ldots \ldots \ldots \quad (3)$$

Dividing (2) by (3) we get

$\lambda(t; x = 1)/ \lambda(t; x = 0)$ =RR (risk ratio or relative risk) = $\exp(B_{12}) \ldots \ldots \ldots$ (4)

which tells us the relative risk of occurrence (within the risk period) of that event of interest with covariate x = 1 compared to that with covariate x = 0 (considered as reference category). A RR > 1 means the group of interest (individuals possessing the category (or value) of covariate) comparing to the reference group is likely to have a shorter time to the occurrence of the event. A RR < 1 means the group of interest comparing to the reference group is less likely to have shorter time to the occurrence of the event. The above model (1) can be fitted for estimating regression coefficients as well as risk ratio or relative risk, by using SPSS (Statistical Package for Social Sciences). For analyzing time to the event (first birth) data, Cox proportional hazard model (described above) has been used, which provides an opportunity to explore the effects of various time independent covariates on the timing of first birth.

In this analysis, interested event is the first birth of ever married adolescent women (EMAW), and all EMAW, after first marriage, are considered as at exposure to the risk of first birth. Observation starts at the time of first marriage and ends when a first child is born or, for right-censored cases after the month of May 2004 (end of study period). The Individual Recode Data File of BDHS-2004 included the variables, age at first marriage and age at first birth, in century month codes (CMC) format and also in years. Century month codes are the measures of number of months from the beginning of the century to the

occurrence of the interested event, and January 1, 1900 is considered as the beginning of century[11]. This CMC form of variables facilitates the calculationinterval between events. In this analysis, the durations (in month(s)) of the event (first birth) of EMAW were calculated by subtracting age (in CMC format) at first marriage from the age (in CMC format) at first birth. For Cox proportional hazard analysis, the dependent variable is the likelihood (or risk) of first birth and the status variable considered in this study as having a first childbirth which coded as 1 if ever married adolescent woman (subject of study sample) had a first birth up to the end of the study period.

Interpreting the Cox proportional hazard model involves examining the regression coefficients (B's) for each category of the covariates and also examining the relative risk/hazard rate for each category compared to the reference category of the covariates. A positive regression coefficient for a category of covariate means the relative risk/ hazard for first birth is higher than the reference category, and a negative regression coefficient for a category of covariate means the relative risk/hazard for first birth is lower than the reference category. A relative risk greater than unity indicates a higher first birth risk (i.e. lower the duration/length from first marriage to first birth), and vice versa.

Covariates for Cox proportional hazard model

Place of region, place of residence, EMAW's educational attainment, educational attainment of EMAW's husband, age at marriage, age difference between the spouses, and religion are included in the Cox proportional hazard model as independent variables (covariates). Percent distribution of EMAW with covariates included in the Cox proportional hazard model, and the categories of each time independent covariate are provided in Table 3. Bangladesh is divided into six administrative divisions (place of region) where respondents lived, display a variation in contraceptive method use, in unmet need for contraceptives, in receiving maternal health care services. To control for these regional differences, region is included in this study as a categorical covariate. Also, the usual place of residence, urban or rural, where EMAW lived, displays some variation in cultural, socio-economic and in demographic features. To examine the disparities in urban and rural areas regarding timing of first birth of EMAW, residence is included as a categorical covariate in the Cox proportional hazard model. Education of EMAW at first birth is not used because this information is not available in the BDHS 2004 data. Instead, education at interview is used in place of education at first birth. For most EMAW it is reasonable, since current age (age at interview) and age at first birth of EMAW is positively correlated (the value of Pearson's correlation coefficient is 0.46 at 0.01 level of significance). Educational attainment of EMAW is generally higher compared to their husbands' educational attainment. Over half (53%) of EMAW are educated beyond the primary level and less than 15 percent of EMAW have no education; the figure contrasts with the 27 percent of husbands who have no education. Less than 43% of the husbands are educated beyond the primary level.

Age at marriage is divided into three categories as younger than 15 years (< 14 years), 15-17 years, and 18-19 years. The distribution of EMAW's age at first marriage shown in Table 3 reflects that Bangladeshi women marry in relatively very early adolescence, despite the law of minimum age at marriage (18 years for women). To examine the disparities of EMAW's timing pattern of first birth regarding beliefs in religion, religion, categorized as Islam and other than Islam, is included in the Cox proportional hazard model. To explore whether the impact of other covariates varies among urban and rural areas, the Cox proportional hazard model is used separately for urban and rural areas (Model II and Model III are respectively for urban and rural areas, in Table 4).

Results and Discussion

The major findings from the Cox proportional hazard analysis appear in Table 4. The results are presented as regression coefficient (B) and relative risk/hazard (exp(B)) of having a first birth relative to reference group for a selected covariate. Model I, model II and model III in Table 4 are based on EMAW for Bangladesh as a whole (national), urban, and rural areas respectively. There are regional variations in the length of first birth intervals: EMAW from Chittagong division had the shortest first birth intervals among the six divisions in Bangladesh. According to place of residence, urban or rural, EMAW residing in urban areas have shorter first birth intervals than those EMAW who resided in rural areas. EMAW with lower educational attainment are less likely to give birth (longer first birth interval) compared to EMAW with complete secondary and/orhigher education in Bangladesh. In contrast to the effects of EMAW's education, their husband's education displays reverse results (in model I and model II). Compared to the reference group (husband with complete secondary and/orhigher education) in whole of Bangladesh (national) and in urban areas, the risk of first birth increased (had shorter first birth intervals) for EMAW with husband's education lower than complete secondary. But in rural areas (Model III), the variations in the risk of first birth of EMAW with husband's education in different levels are not statistically significant. Adolescent women who married in late adolescence had higher risk of first birth than those who married in early adolescence.

All categories for the covariate (age difference between spouses) had lower risk of having first birth compared to reference group (husband 16 years or more than 16 years older).

About 53% of EMAW had given first birth, and about 90% of them gave their first birth within three years of their marriage in Bangladesh. It may be caused because of low utilization of contraceptives at adolescence or before first birth.

EMAW with no education, incomplete primary, complete primary or incomplete secondary had lower risk of first birth (longer first birth

interval) than EMAW with complete secondary and/or higher education in Bangladesh. It may have happened because, in Bangladesh, adolescent girls with more education get married later (and want child very soon after marriage) compared to adolescent girls with less education.

Adolescent women's age at marriage had significant effect on risk of first birth. According to the results of hazard regression analysis in the three models, women, who got married at less than 15 years of age and at between 15-17 years of age, had lower risk of first birth i.e. longer first birth intervals. It indicates that Bangladeshi adolescent women, who got married at age 18 or 19 years, had their first childbirth very soon after their marriage.

Discussion

It should be conveyed to currently married adolescent women about the perils of early first birth, by making appropriate communication programs. This study shows that lengths of EMAW's first birth are very short in Bangladesh. Chittagong division and urban areas should be paid more consideration for lengthening duration between marriage and first birth. Early childbearing can be postponed by delaying marriage. Due to prevailing cultural and social norms favoring early marriage, only legislation for age at marriage is an effective way of delaying marriage. There are some other ways, such as policies and programs, to increase opportunities for education and more education for adolescent girls, and to increase parents (of adolescents) awareness through social campaigns about negative consequences of early marriage and early childbearing, all of which may be likely result in delayed marriage (which may also be likely to shorten the spouses' age difference). It is necessary to emphasize reproductive health education at secondary level in the country's education system. More important is the need to lengthen the interval between marriage and first birth, thus delaying first birth. There is a need to encourage newly married adolescent women (also their husbands) to use contraceptives which are relevant to spacing births through reinforcing supplies of contraceptives by family planning program efforts.

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Table 1. Percent distribution of ever married adolescent women (EMAW) by age at first birth, according to age at interview and place of residence, Bangladesh, 2004.

Age at interview	Age at first birth							EMAW who had first birth	Total no. of EMAW
	13	14	15	16	17	18	19	% (number)	
13	0.00	-	-	-	-	-	-	0.00 (0)	36
14	2.00	6.00	-	-	-	-	-	8.00 (8)	100
15	2.03	18.78	11.16	-	-	-	-	31.97 (63)	197
16	1.53	10.72	20.30	12.26	-	-	-	44.82(117)	261
17	3.24	8.84	17.99	19.17	9.43	-	-	58.70(199)	339
18	0.93	9.93	15.21	14.59	12.42	9.93	-	63.04(203)	322
19	2.67	8.02	9.89	18.72	16.31	12.57	7.75	75.93(284)	374
Urban	1.05	9.75	14.41	11.23	9.75	3.81	2.33	52.33(247)	472
Rural	2.51	10.11	13.31	13.92	7.52	5.27	1.55	54.19(627)	1157
National	2.09	9.64	13.63	13.14	8.16	4.85	1.78	53.65(874)	1629

Note: - = not applicable, figures in parenthesis indicate number of EMAW with first birth.

Source: Author's estimations based on Bangladesh Demographic and Health Survey (BDHS)–2004.

Table 2. Cumulative proportions of ever married adolescent women (EMAW) (who had a first birth) and the corresponding median lengths of first birth (since first marriage) by residence, Bangladesh, 2004.

First birth intervals (months since first marriage)	Urban	Rural	National
6	0.004	0.014	0.011
12	0.243	0.230	0.233
18	0.506	0.455	0.469
24	0.696	0.635	0.652
30	0.826	0.796	0.804
36	0.903	0.893	0.896
42	0.960	0.943	0.951
48	0.988	0.974	0.978
54	1.000	0.987	0.991
59	1.000	1.000	1.000
Median	18	20	20
Total	247	627	874

Source: Author's estimations based on BDHS–2004.

Table 3. Percent distribution of ever married adolescent women (EMAW) with time-independent covariates included in the Cox proportional hazard model, Bangladesh, 2004.

Covariate	Percent (number)	Covariate	Percent (number)
Total	100 (1629)	**Age at first marriage**	
Region		≤14	57.6 (939)
Barisal	12.0 (196)	15–17	37.4 (609)
Chittagong	18.5 (302)	18–19	5.0 (81)
Dhaka	20.1 (328)		
Khulna	15.7 (256)	**Spouses' age difference**	
Rajshahi	25.9 (422)	Husband younger or 0–4 years older	12.3 (201)
Sylhet	7.7 (125)	Husband 5–9 years older	47.6 (776)
Residence		Husband 10–15 years older	30.8 (502)
Urban	29.0 (472)	Husband 16 years or more older	9.2 (150)
Rural	71.0 (1157)		
EMAW's education		**Religion**	8.1 (132)
No education	14.1 (230)	Other than Islam	91.9 (1497)
Incomplete primary	21.4 (349)	Islam	
Complete primary	11.4 (186)		
Incomplete secondary	47.7 (777)		
Complete secondary or/and higher	5.3 (87)		
Husbands' education			
No education	27.2 (443)		
Incomplete primary	19.3 (315)		
Complete primary	12.0 (195)		
Incomplete secondary	27.4 (446)		
Complete secondary or/and higher	14.1 (230)		

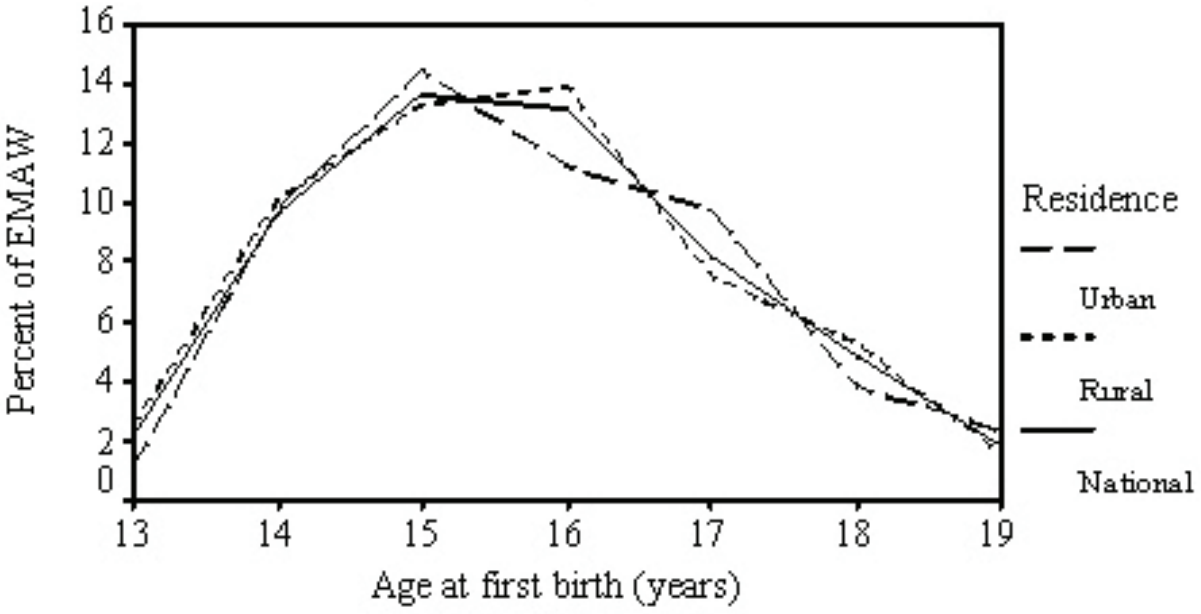
Source: Author's estimations based on BDHS–2004.

Table 4. Regression coefficients and relative risks of having the first birth after first marriage of ever married adolescent women (EMAW), Bangladesh, 2004.

Covariate	National Model I		Urban Model II		Rural Model III	
	B	Relative Risk =exp(B)	B	Relative Risk =exp(B)	B	Relative Risk =exp(B)
Region						
Barisal (RC)						
Chittagong	0.400	1.49c	0.836	2.31c	0.279	1.32a
Dhaka	0.091	1.10	0.223	1.25	0.116	1.12
Khulna	0.067	1.07	0.343	1.40	-0.003	0.99
Rajshahi	0.063	1.07	0.444	1.56	-0.017	0.98
Sylhet	0.113	1.12	-0.051	0.95	0.208	1.23
Residence	0.164	1.18				
Urban						
Rural (RC)						
EMAW's Education						
No education	-0.414	0.66a	-0.764	0.47b	-0.295	0.74
Incomplete primary	-0.400	0.67a	-0.195	0.82	-0.421	0.66
Complete primary	-0.163	0.85	-0.291	0.75	-0.097	0.91
Incomplete secondary	-0.199	0.82	-0.257	0.77	-0.174	0.84
Complete secondary or/and higher (RC)						
Education of husband						
No education	0.299	1.26a	0.622	1.86c	0.062	1.06
Incomplete primary	0.274	1.32b	0.647	1.91c	0.135	1.15
Complete primary	0.041	1.04	0.015	1.02	-0.021	0.98
Incomplete secondary	0.087	1.09	0.422	1.53b	-0.098	0.91
Complete secondary or/and higher (RC)						
Age at first marriage						
<14 years	-1.815	0.16c	-2.091	0.12c	-1.578	0.21c
15–17 years	-1.275	0.28c	-1.215	0.30b	-1.126	0.32c
18–19 years (RC)						
Spouses' age difference						
Husband younger or 0–4 years older	-0.164	0.85	-0.462	0.63	-0.080	0.92
Husband 5–9 years older	-0.109	0.90	-0.238	0.79	-0.121	0.87
Husband 10–15 years older	-0.058	0.94	-0.138	0.88	-0.053	0.95
Husband 16 years or mor older (RC)						
Religion						
Other than Islam	-0.028	0.97	-0.018	0.98	-0.010	0.99
Islam (RC)						
Initial log likelihood	10169.6		2255.5		6879.8	
Final log likelihood	10076.2		2192.0		6826.3	
Degrees of freedom	20		19		19	

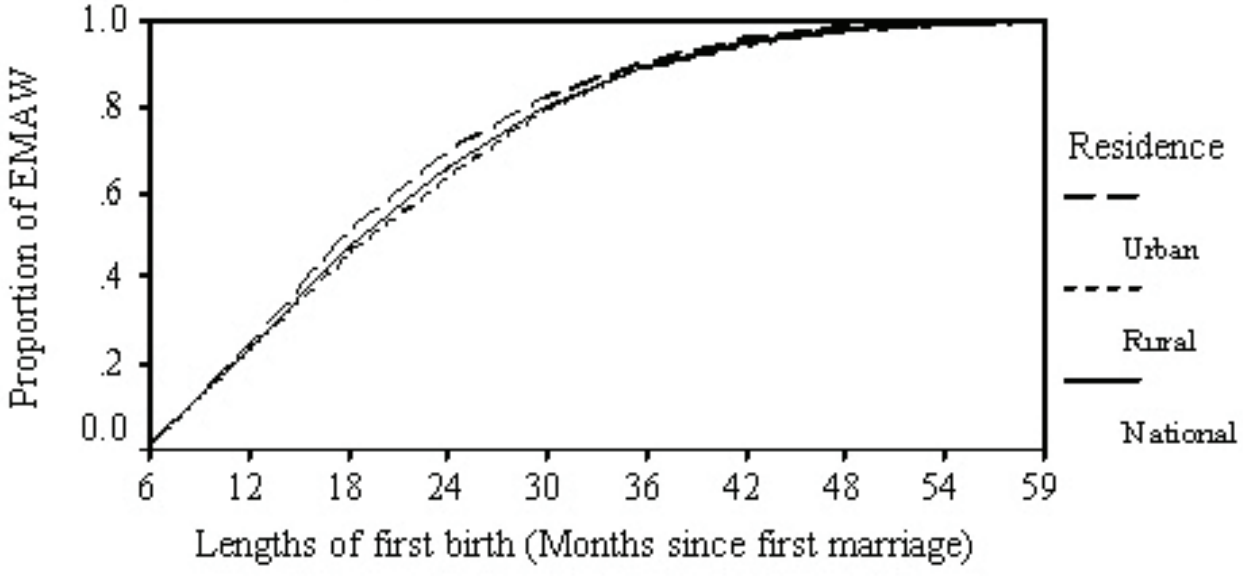
Note: Levels significant at a= 10%, b=5%, and c=1%; RC= Reference category.

Figure 1: Distribution of ever married adolescent women (EMAW) by age at first birth and residence, Bangladesh , 2004.



Source: BDHS-2004

Figure 2: Cumulative proportions of ever married adolescent women (EMAW) by lengths of first birth and residence, Bangladesh, 2004.



Source: BDHS-2004

Prevalence and Predictors of Asymptomatic Bacteriuria among Pregnant Women Attending Primary Health Care in Qatar

ABSTRACT

Introduction:
The study aims to determine the prevalence and predictors of asymptomatic bacteriuria in pregnant women attending antenatal clinic at the primary health care centers in Qatar.

Methodology:
A cross-sectional study was carried out at four primary care centers that were selected randomly; and all pregnant women attending antenatal clinic between August and November 2008 and who agreed to enter the study, were clinically evaluated to exclude signs and symptoms of urinary tract infection (UTI). After collection of demographic and medical data of the participants, and samples of 10-15ml urine have been collected and cultured.

Results
Of the 433 pregnant women, 43 had significant bacteriuria giving a prevalence rate of 9.9%. The highest prevalence was found in the 35-39 year-olds (13%). There was no significant difference in prevalence with increasing parity. The dominant bacteria isolates were E. coli (31%) and Streptococcus agalactiae (30%). Ppregnant women who have previous history of UTI are approximately 3 times more likely to develop asymptomatic bacteriuria as compared to those who have no history of UTI (OR=2.7, 95% CI=1.4-5.1). Anemia increased the risk for developing asymptomatic bacteriuria (OR= 1.5, 95% CI=1.1- 3.4).

Conclusion
The prevalence of asymptomatic bacteriuria in pregnant women attending primary health care centers in Qatar is 9.9%, and the predominant organism was E.coli. The current screening for asymptomatic bacteriuria in pregnant women attending antenatal clinic at primary care should focus on anemic pregnant women and those with history of urinary tract infection.

Keywords: asymptomatic bacteriuria, pregnant women, Qatar.

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Introduction

Asymptomatic bacteriuria is a major risk factor for the development of urinary tract infections (UTI) in pregnancy , which are relatively common problems during pregnancy, due to the fact that physiological changes related to pregnancy make otherwise healthy women susceptible to serious infectious complications, arising from conditions such as asymptomatic and symptomatic urinary tract infections.[1]

The combination of mechanical, hormonal and physiologic changes during pregnancy contributes to significant changes in the urinary tract, which has a profound impact on the acquisition, and natural history of bacteriuria during pregnancy. This includes dilatation of the ureter, decrease in ureteral peristalsis, and decrease in bladder tone. Additionally, the physiologic increase in plasma volume during pregnancy decreases urine concentration and increases urinary progestins and estrogens, which may lead to a decreased ability of the lower urinary tract to resist invading bacteria.[1,2]

In addition to physiological changes, there are a number of conditions associated with an increased prevalence of asymptomatic bacteriuria in pregnancy. Low socio-economic status, sickle trait, diabetes mellitus and grand multi parity have been reported; each is associated with two-fold increase in the rate of Bacteriuria. It also increases with higher parity and advancing age.[2]

It is clear that asymptomatic bacteriuria is the major risk factor for developing symptomatic urinary tract infection and that symptomatic infection is associated with significant maternal and fetal risks.3 The significance of asymptomatic bacteriuria lies in its potential to cause cystitis or acute pyelonephritis, which develops in one third of the pregnant women with untreated bacteriuria.[4,5] In addition to symptomatic urinary tract infection, a variety of conditions has been reported to be associated with asymptomatic bacteriuria. Of these are pre-term labor, low birth weight, prematurely, pre-eclampsia and chronic renal disease that has been cited as significant adverse obstetric outcome and medical conditions. Thus, early detection and treatment can possibly decrease the occurrence of the side effects.[3,4]

Therefore, proper screening and treatment of bacteriuria during pregnancy is necessary to prevent complications. The current recommendation is to obtain a urine culture between 12-16 weeks of gestation and pregnant women in whom asymptomatic bacteriuria is detected should be treated with antibiotics targeting the cultured organism, and they should undergo

follow-up monitoring.[3,6-8]

In the primary care setting, dipstick analysis and direct microscopic examination are often used for screening, but these tests have poor positive and negative predictive values to detect bacteriuria in asymptomatic persons. Although urine culture is expensive for routine screening in populations with a low prevalence of the urinary tract infection, it has been considered as the gold standard to detect asymptomatic bacteriuria. It is therefore the preferred screening test for pregnant women because no other currently available tests have sufficiently high sensitivity and negative predictive value in this population.[6,9]

In Qatar there is insufficient local data on asymptomatic bacteriuria among pregnant women attending antenatal clinics in primary health care. Hence, this study aims to determine the prevalence and predictors of asymptomatic bacteriuria in pregnant women.

Methodology

This cross-sectional study was conducted at four primary health care centers, which were randomly selected out of 23 centers distributed throughout Qatar. All pregnant women attending the antenatal clinic and who agreed to participate in this study between 1 August to 30 November 2008, were recruited. The study excluded any pregnant women who presented with any two of the following genitourinary complaints: dysuria, urinary hesitancy, urgency, slow stream, incontinence, frequency, incomplete voiding, and flank, suprapubic, or hypogastric pain. A structured questionnaire was administered by the attending physician or nurse to collect data related to demographic characteristics: (age, nationality, level of education); and medical history: (age of gestation, parity, hemoglobin level, previous history of UTI). Samples of 10-15ml urine were obtained and placed in a cold box. It was microscopically examined for pus cells, bacteria and ova, and then cultured within two hours. Urine samples that were not cultured within two hours were stored at 4°C. Samples were cultured on dried plates of Cysteine lactose electrolyte deficient agar (CLED), using a calibrated loop delivering 0.002 ml of urine. Plates were incubated aerobically at 37°C overnight. Colony counts yielding bacterial growth of 105/ml or more of pure isolates were deemed significant. Isolates were identified to species level using standard methods. The Statistical Package for Social Sciences, version 13.00 for windows (SPSS-13) was used for data entry with appropriate coding. Chi-square was used to evaluate the difference between proportion and categorical variables. Statistical level of significance was taken as 0.05 and 95% confidence interval (CI) was calculated. The binary logistic regression was used to assess strength of association between the dependent and independent variables under study. Odds ratio (OR) and CI were calculated in logistic regression analysis.

Results and Discussion

This study included 433 pregnant women attending antenatal care clinics at four primary health care centers. The mean age of the women included in the study is 26.4 years with a standard deviation of 5.2. Of the 433 pregnant women screened, 43 women had asymptomatic bacteriuria with prevalence of (9.9%). Escherichia coli, which comprised (31%), was the most frequent isolated organism, followed by Streptococcus agalactiae (30%) and Klebsiella pneumoniae (16%), as shown in Figure 1. The prevalence of asymptomatic bacteriuria was higher among women <30 years (10.7%) than those age >30 years (7.3%). Also women who were Qatari nationals have a higher prevalence (11.8%) compared with non-Qatari women (9.5%). Illiterate women and women with primary education have a higher prevalence rate (15.8% and 18.9% respectively) as shown in Table 1. In terms of characteristics related to the medical history, the prevalence of asymptomatic bacteriuria was higher among women with age of gestation of > 16 weeks (11%). Also, nullipara pregnant women had higher prevalence rate (11.4%). Table 2 shows that pregnant women who have a positive history of UTI had significantly higher prevalence than those who have no history of UTI (18% vs 7.8%, p-value <0.05). The prevalence of bacteriuria among anemic women with Hb level <10.5 mg/dl was higher than women who are not anemic (15.9% vs 8.9%, p-value <0.05). As illustrated in Table 3, the most significant predictors in the final best-fit model of logistic regression showed that pregnant women who have previous history of UTI are approximately 3 times more likely to develop asymptomatic bacteriuria as compared to those who have no history of UTI (OR=2.7, 95% CI=1.4-5.1). Being anemic during pregnancy increased the risk for developing asymptomatic bacteriuria compared to women with normal Hb level (OR= 1.5, 95% CI=1.1- 3.4).

Discussion

This study showed that the overall prevalence of asymptomatic bacteriuria among pregnant women attending primary health care centers in Qatar was 9.9%, which is higher than the reported prevalence in most of the previous studies. In theses studies the prevalence of asymptomatic bacteriuria in pregnancy varies from 4-7% (range 2-11%).4 For instance primary care based studies in Middle East countries reported that prevalence of asymptomatic bacteriuria is 6.1 % and 4.8% among pregnant women in Iran and United Arab Emirates respectively.1,10 However the prevalence in this study is lower than what has been reported in Saudi Arabia.11 In Asian studies the prevalence varies from one community to another. For example while the asymptomatic bacteriuria was 4.3% among Filipino pregnant women2, this percent increases to 12% in rural areas in Bangladesh.12 Similarly, in Africans studies the prevalence of asymptomatic bacteriuria is situated within the same range. For instance in Ethiopia and Ghana, the incidence of asymptomatic bacteriuria was 9.3% and 7.3% respectively.13,14 The prevalence of asymptomatic bacteriuria varies between the studies even within the same country. For instance, asymptomatic bacteriuria in Nigerian studies ranges from 4% to 21%, depending on the population studied

in different Nigerian provinces.15 Also, in western studies the same difference in estimated asymptomatic bacteriuria exists. For example while in the US the prevalence of asymptomatic bacteriuria is 2-7%[6], the percentage jumps to 16% among Spanish pregnant women.[16] This variation can be attributed to several factors such as the geographical variation, ethnicity of the subjects, setting of the study (primary care, community based, or hospitals), and the variation in the screening tests (urine dipstick, microscopy, culture).

Consistent with the majority of the reported studies, E. coli has been identified as the most common pathogen isolated among the pregnant women in this study. However E. coli formed 31% of isolated organism which is lower than what have been reported in different countries like Ethiopia (79%)[14], Turkey (77%)[17], Philippines (50%)[2] and Ghana (37%)[12]. The predominance of E. coli could be attributed to the urinary stasis, which is common in pregnancy and since most E. coli strains prefer that environment, to cause UTI[5].

Literature revealed that there are various factors that are associated with asymptomatic bacteriuria during pregnancy. For example some previous research found that the incidence of asymptomatic bacteriuria is highly associated with multiparity and during the third trimester.[15,17,18] Furthermore demographic determinants such as illiteracy or being from a low socioeconomic background is also associated with asymptomatic bacteriuria during pregnancy.[18] In our study, such association has not been identified between these characteristics and bacteriuria.

This study found a strong association between previous history of UTI and low hemoglobin level with occurrence of asymptomatic bacteriuria during pregnancy. Positive history of UTI and anemia were identified as predictors for developing asymptomatic bacteriuria during pregnancy. Our results showed that the history of UTI is considered as the strongest predictor which is reported by some other studies.[2,7,10]

In agreement with previous studies that found the risk of bacteriuria is doubled in women with anemia (OR=2.5) or sickle cell trait (OR=2), [10,19] the current study found a similar risk but less than that reported (OR=1.5). Determining such predictors can help health care professionals to identify those women who are more likely to get bacteriuria, however this study did not investigate other risk factors for bacteriuria such as diabetes mellitus and urinary tract anomalies.[7,10,19]

In conclusion, the prevalence of asymptomatic bacteriuria in pregnant women attending primary health care centers in Qatar is 9.9%, and the predominant organism is E.coli. Current screening for asymptomatic bacteriuria in pregnant women attending antenatal clinics at primary care level should focus on their first pre-natal visit especially if they are anemic, and those with a history of urinary tract infection.

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Table 1 Percentage of asymptomatic bacteriuria cases according to demographic characteristics of 433 pregnant women.

Variable	Total number	Asymptomatic bacteriuria N(%)
Age group		
<30 years	309	33(10.7)
≥30 years	124	9(7.3)
Nationality		
Qatari	88	10(11.8)
Non-Qatari	345	33(9.5)
Level of education		
Illiterate	19	3 (15.8)
Primary education	37	7 (18.9)
Secondary education	121	9 (7.2)
University	256	24 (9.4)

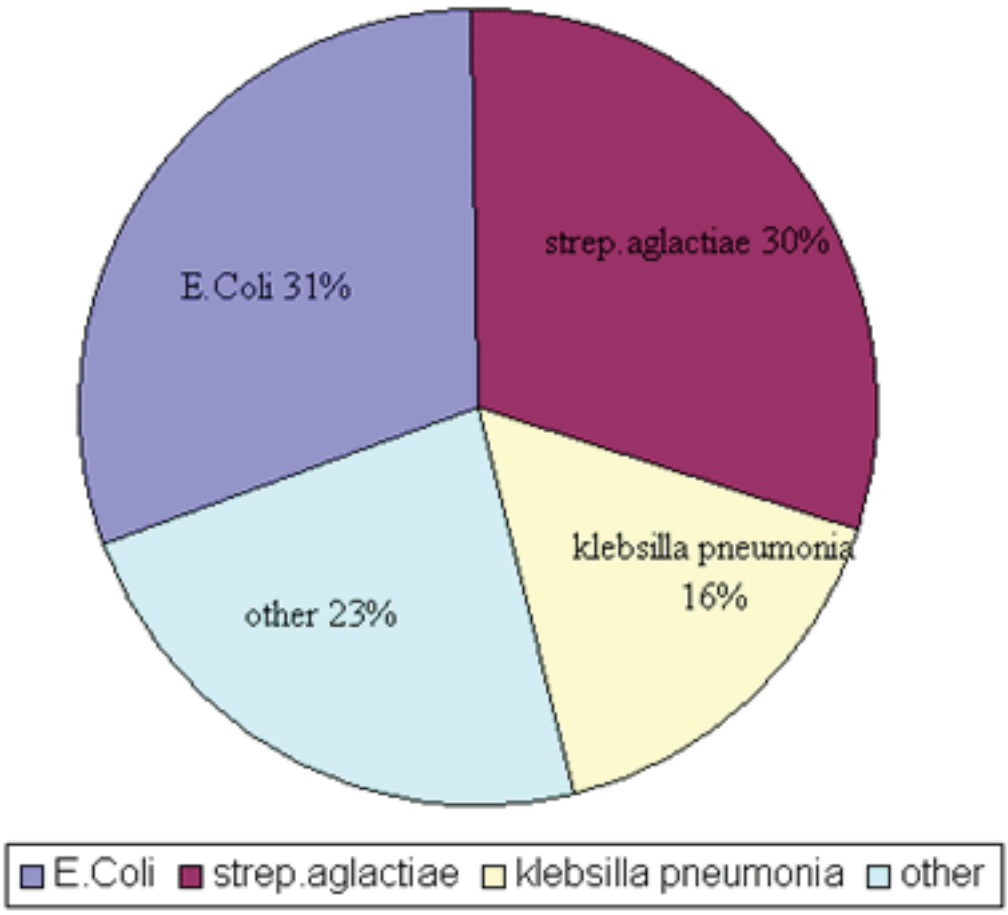
Table 2 Percentage of asymptomatic bacteriuria cases according to medical history of 433 pregnant women.

Variable	Total number	Asymptomatic bacteriuria N (%)
Age of gestation		
<16 weeks	261	24(9.2)
≥16 weeks	172	19(11.0)
Parity		
0	158	18(11.4)
1-2	180	18 (10)
≥ 3	95	7(7.4)
Previous history of UTI*		
Positive	89	16(18)
Negative	344	27 (7.8)
Hemoglobin level (mg/dl)**		
<10.5	63	10(15.9)
≥10.5	370	33(8.9)

* x2 = 7.017, degree of freedom (df) = 1, P-value <0.05
** x2 = 2.910, df = 1, P-value <0.05

Table 3 The most significant predictors associated with asymptomatic bacteriuria during pregnancy using the binary logistic regression analysis.

Variable	Asymptomatic Bacteriuria	
	OR	95% CI
History of UTI		
No	1	-
Yes	2.7	1.4-5.1
Hemoglobin level (mg/dl)		
≥10.5	1	-
<10.5	1.5	1.1-3.4



Outpatient Vaginal Misoprostol and Its Effect on Post Term Pregnancy

ABSTRACT

Background and objectives: Misoprostol is a commonly used prostaglandin to prevent post term pregnancy; but a controversy about the route of administration and the dose of misoprostol remains unresolved. This study was designed to determine whether outpatient administration of vaginal misoprostol safely decreases the incidence of post term pregnancies.

Methods: An open randomized controlled trial was carried out in Mahdieh hospital, Tehran, Iran (2008). Forty-four women were randomized at 40 weeks gestation to receive 25 µg vaginal misoprostol (22) or placebo (22) on an outpatient basis. Women were then allowed to go into spontaneous labor unless an indication for induction developed.
Main outcome measures were incidence of post term delivery, Misoprostol side-effects and neonatal outcomes.

Results: Misoprostol was associated with a significant decrease in mean time to delivery (68.3 ± 6.263 versus 125.81 ± 72.744 hours; P =0.013), earlier gestational age at delivery (285.55 ± 2.417 versus 287.76 ± 2.644 days; P =0.008), without any significant increase in uterine hyper stimulation, fetal distress, low Apgar score at delivery or other side-effects.

Conclusions: Outpatient administration of 25 µg vaginal misoprostol (single dose) in term pregnancy can safely reduce the length of gestation.

Keywords: misoprostol, post term pregnancy, prostaglandin.

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Introduction

Post-term pregnancy is a common problem during pregnancies and is associated with significant morbidity and mortality. Fetal distress, macrosomia, and releasing of meconium in amniotic fluid are some of these complications[1]. On the other hand induction of labor in the presence of unfavorable cervix can increase the risk of cesarean section[1].

Prostaglandins have proved to have an effect on cervical ripening[2]. Misoprostol (prostaglandin E1 analog) is effective for cervical ripening and induction of labor in term pregnancies[3]. Misoprostol is an inexpensive drug that can be stable at room temperature. There is a concern that misoprostol may increase the rate of uterine hyper stimulation[4-9], although in some studies misoprostol had no adverse effect and were not associated with uterine hyper stimulation[10].

There have been several meta-analyses and systematic reviews of randomized controlled trials evaluating the use of misoprostol for cervical ripening and labor induction suggesting that misoprostol is effective; despite this, a controversy about the route of administration and the dose of misoprostol remains unresolved.

Outpatient administration of misoprostol has been studied only in few investigations[10] but it may be efficient and cheap to decrease post term pregnancies.

Misoprostol can decrease the rate of post term pregnancy and its associated complications, additionally outpatient administration of misoprostol can haveconsiderable cost implications, and with avoiding of hospital admission during administration of misoprostol, it can be a practical method with lower costs especially in developing countries.

The aim of this study was to determine whether the administration of a single low-dose vaginal misoprostol would prevent post term pregnancy.

Methods

This study was an open randomized controlled trial conducted from April 2007 to December 2007 in Mahdieh hospital in Tehran, Iran.

The approval for this research proposal was granted by Research and Review Committee of Shahid Beheshti University of medical science in April 2007.

All women seen at the prenatal care unit in Mahdieh hospital, who had uncomplicated singleton pregnancies at 40 weeks gestation and were candidates for vaginal delivery, were invited to participate in this study. Inclusion criteria were: singleton pregnancy, vertex presentation, intact membrane, Bishop Score <6. Women entered in this study were at their 40 weeks of gestational age and did not have any indication for induction of labor and were not in active phase of labor. Gestational age was based on last menstrual period and

ultrasonography before 20 weeks.

Patients were excluded from the study if they had non vertex presentation, cephalopelvic

disproportion, contraindication of misoprostol administration (asthma, cardiovascular diseases and allergy), previous cesarean section or uterine incision, maternal systemic diseases, fever, nausea, vomiting, diarrhea, fetal anomalies or diseases, parity >5, unexplained vaginal bleeding, fetal distress (Intra uterine growth restriction, oligohydraminous, non-reactive non-stress test), estimated fetal weight of >4500 g. A non-stress test was carried out and the women with non-reassurance pattern of NST were excluded.

The main outcome measures included the time from intervention up to delivery, gestational age at delivery and post-term pregnancy (defined in this study as gestational age of 41 weeks and 3 days or beyond). Other measures were the proportion of cesarean section and vaginal delivery, side-effects of misoprostol (fever, nausea, vomiting and diarrhea), releasing of meconium in amniotic fluid, neonatal outcomes (1-minute and 5-minute Apgar score and admission to NICU), uterine tachysystole (defined as >5 contractions in a 10-minute period) and hyper tonus (defined as a single contraction that lasted longer than 90 seconds).

Tablets (100 µg misoprstol and placebo) were quartered by the pharmacist with a pill cutter. The placebo tablets were similar to the tablet of misoprostol in appearance and texture. After signing an informed consent form, eligible candidates randomly had a sealed envelope containing either misorostol (25 µg) or placebo. The tablet was placed in the posterior fornix of vagina.

Women were monitored continuously for 2 hours after intervention regarding the half life of misoprostol that is about 20-40 minutes(11).

During this period, fetal FHR and uterine contractions was monitored and maternal signs and symptoms (nausea, vomiting, fever and diarrhea) were recorded.

If the woman had regular contractions after 2 hours, she was sent to labor and delivery unit for evaluation; otherwise she was discharged home.

Women were examined every 3 days, and were admitted if they had rupture of membranes, regular contractions, cervical dilation > 3cm or gestational age = 41 weeks and 3 days. Admission, delivery, and neonatal outcome data were recorded when the women were admitted.

Study participants, nurses, residents and attending staff were unaware of the randomization and group assignment until completion of the trial.

A sample size and power calculation determined that 34 women was sufficient (power of 0·90, α = 0·01, and β = 0·10). Assuming a 25 percent reduction in the number of cases during study, 44 cases entered the study. These calculations were made on the basis of other published studies (10).

The test was two-sided, and data were entered into Excel and analyzed independently using x^2 or Fisher exact test and independent samples t-test or Mann Whitney U test. A P-value of <0·05 was considered significant. Data were analyzed with SPSS 16.2. For discrete data, relative risk (RR) with 95 percent confidence intervals (CI) was used.

Results

A total of 44 women were enrolled. 22 patients were assigned randomly to the misoprostol group, and 22 patients were assigned randomly to the placebo group. Three women (2 of the misoprostol group and 1 of the placebo group) were excluded, because they ceased the study and didn't return for latter visits. Complete outcome data was collected on all 41 participants.

The groups were similar in maternal age, nulliparity, Bishop's score and gestational age at the time of intervention (Table 1).

Table 2 and 3 contain the delivery data. The gestational age on delivery was significantly less in the misoprostol group compared with the placebo group (285.55 ± 2.417 days versus 287.76 ± 2.644 days, P= 0.008).

The interval between intervention and delivery was significantly shorter in the misoprostol group compared with the placebo group (68.30 ±68.263 hours versus 125.81 ± 72.744 hours, P= 0.013); misoprostol also shortened the mean time from the intervention to vaginal delivery in the nulliparous (84.33 ± 67.855 hours versus 151.77 ± 76.291 hours) and parous (44.25 ± 65.661 hours versus 83.62 ± 43.084 hours) groups.

Two patients in the misoprostol group had post-term pregnancy, compared with five in the control group but it did not reach a significant level. (P= 0.13)

There was no significant difference between misoprostol and placebo groups in the cesarean delivery rates. The indications for cesarean delivery were fetal distress in labor (one in the misoprostol group, two in the control group), releasing of meconium in amniotic fluid (one in the misoprostol group, two in the control group) and secondary arrest of cervical dilatation (one in the control group).

Newborn outcomes were comparable between treatment groups (Table 4). Meconium was present in 10 percent of the misoprostol group compared with 19 percent in the control group (RR= 0.472; 95% CI= 0.076-2.921). Only one infant (in the control group) was admitted to the neonatal intensive care unit (because of meconium aspiration) and 1 and 5-minute apgar scores were similar in both groups.

There were no cases of fetal distress, tachysystole (=5 contractions in a 10-minute period) and hyper tonus (single contraction = 90 seconds) in this study. During 2 hours after intervention, nausea, vomiting, and diarrhea were not found in the misoprostol and control groups; and increase of body temperature during this period was similar (one in the misoprostol group and two in the control group).

Discussion

In this randomized clinical trial, the efficacy of a single dose of 25 µg vaginal misoprostol on an outpatient basis was investigated. This study is similar to a previous cervical ripening investigation by Victor O. Oboro who had used the same intervention[10].

Results in our study showed that the single dose of misoprostol (25 µg) can be useful in decreasing the length of pregnancy.

A single dose of 25 µg misoprostol wasn't associated with nausea, vomiting, and diarrhea; and fever wasn't significantly different in two groups.

The relation between misoprostol and uterine hyper stimulation has been challenged in several studies (4-9). Uterine hyper stimulation has been shown with the use of higher doses of misoprostol and one single dose of 25 µg was not associated with hyper stimulation[10]. There were no cases of uterine hyper stimulation in our study either when spontaneous labor occurred or when induction was performed for pregnancies going beyond 41 weeks and 3 days of gestation.

In Victor O. Oboro's study the neonatal outcome among patients who received misoprostol was not significantly different from the controls who did not receive misoprostol. In our trial either the neonatal outcome (1-minute Apgar score, 5-minute Apgar score and NICU admission) was similar in misoprostol and control group.

In some studies it has shown a trend towards a higher risk of meconium staining with misoprostol[12], but we didn't find a significant difference between misoprostol and control group.

Cesarean delivery rates in Jay M. Bolnick et al study[13] with the use of 25 µg misoprostol every 4 hours was 16.9 percent. In Victor O. Oboro's study there was no significant difference between groups (one single dose of 25 µg misoprostol and placebo) in the cesarean delivery rates. Although in our trial there was 10 percent cesarean rate in the misoprostol group and 23.8 percent in the control group, it did not reach a significant level.

Findings in this study show that misoprostol can have an important role in cervical ripening and management of uncomplicated postdate pregnancies, and the use of misoprostol in low doses can limit its side effects.

Outpatient administration of misoprostol also has considerable cost implications, and with avoiding of hospital admission during administration of misoprostol, it can be a practical way especially in developing countries.

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Table 1: Demographic characteristics of patients who received vaginally either misoprostol or placebo

characteristics	Misoprostol (n=20)	Placebo (n=21)	P
Maternal age (years)*	27.25 ± 5.476	25.95 ± 5.861	0.469
Gestational age at the time of intervention (days)*	282.80 ± 1.963	282.71 ± 1.678	0.881
Bishop's score*	3.00 ± 1.522	3.05 ± 1.431	0.918
Nulliparous	60.00%	61.90%	0.016

*Data are given as mean ± SD.
No statistical difference (P > 0.05) was found between groups for each comparison.

Table 2: Delivery data in misoprostol and control group

characteristics	Misoprostol (n=20)	Placebo (n=21)	P
Gestational age at the time of delivery (days)	285.55 ± 2.417	287.76 ± 2.644	0.008
The interval between intervention and delivery (hours)	68.30 ± 68.263	125.81 ± 72.744	0.013
post term pregnancy	2 (10%)	7 (33.3%)	0.130
cesarean section	2 (10%)	5 (23.8%)	0.410

Data are given as mean ± SD

Table 3: Delivery data in nulliparous and parous groups				
	p	**n**	**The interval between intervention and delivery (hours)**	**Gestational age at the time of delivery (days)**
Misoprostol (n=20)	Nulliparous	12	53.50 (35.50-117.50)	285.00 (284.00-287.00)
	Parous	8	21.50 (12.25-35.75)	285.00 (283.25-286.75)
Placebo (n=21)	Nulliparous	13	154.00 (85.50-223.50)	289.00 (286.00-291.00)
	Parous	8	84.50 (43.75-121.50)	286.50 (285.25-289.75)
*Data are given as median(IQ 25-75)				

Table 4: Neonatal outcomes in misoprostol and control group			
characteristics	**Misoprostol (n=20)**	**Placebo (n=21)**	**P**
NICU admission	0 (0%)	1 (4.8%)	1.000
1-minute apgar score	8.85 ± 0.366	8.9 ± 0.301	0.603
5-minute apgar score	9.85 ± 0.366	9.9 ± 0.301	0.603
meconium-stained amniotic fluid	2 (10%)	4 (19%)	0.663
Data are given as mean ± SD			

Health Status of Female children in Iran

ABSTRACT

Objectives: The present paper will review health status of Iranian children and some aspects of sexual differences of the journey in life from birth to childhood.

Material and Methods: Data was derived from Demography and Health Survey and National Health Survey and some other health reports, through analysis of existing data. Sex differentials in the average number of live births rate, neonatal, infant, under 5 years mortality, nutrition, access to education and health indicators have been compared by descriptive and analytic statistics in SPSS software.

Results and conclusion: The results of this study show health status of child health in Iran. However, there is no significant difference between male and female children in Iran from the standpoint of health, but we still need more information about their social support and security.

Key words: Female, Child, Differences, Health.

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Introduction

The health of the girl child is a concern for health providers. Is the girl child denied her right to life, and are males more highly valued than females?

Are the health needs of the girl child any different to the needs of the boy child?

The answer is that they should not be so different and we do not need to draw a clear distinction between sexes.

In fact sexual differences remain a global issue, nevertheless, there are few, if any countries in the world, especially developing countries where females suffer some disadvantages in relation to males. In an analysis of data from 27 countries, a strong correlation was found between a measure of son preference and males had lower mortality rates during infancy and childhood, to females[(2)].

Nutritional deficiencies in childhood pose health problems for both males and females in future life.

Based on WHO reference, children two or more standard deviations below the median of the reference are considered moderately or severely undernourished[(3)].

Another important area of female disadvantage throughout the world is access to education. It is perhaps the strongest variable affecting the status of women[(4)].

From standpoint of health indicators and variables, including neonatal, infant and under 5 years mortality, sex ratio at the time of birth (sex selection before birth), nutrition, education and health indicators, are discussed in relation to child health and especially female children in Iran. It is important to realize that the health network of Iran is an integrated system composed of ministry of health and medical science universities. Three district sectors are currently involved in health care provisions in Iran: Government services (in this system the health house is the most peripheral facility in the network and has the provisions of PHC and family planning), health insurance and the private sector. A male and a female villager known as Behvarz who were selected from among the natives and trained for two years, and have enough knowledge and skills to deliver primary health care staff in a health house in rural areas. In Tehran (capital city of Iran) and other large cities, private sector and referral systems have been more established. Accessibility and facilities are more developed compared to rural areas.

Materials and Methods

The main objective of this study was to evaluate health status of children in Iran and especially to determine if there are any differences against the health of female children in Iran. This is a review and analysis of current existing data on this issue by descriptive and analytic statistics in SPSS software .P values less or equal to 0.05% were determined significant.

We reviewed health information from national health reports, including:

1.Iran Demographic and Health survey (DHS 2000)[5].

"The principal objective of that study was to determine population and health statistics, and its practical goal was to use the indicators generated by it for the purposes of urban and rural planning. The specific objectives were: Determine baseline, households' welfare, and fertility and contraceptive usage indicators forneonatal, infant, and under 5 year's mortality. Baseline situation of children, such as child labourers, access to education, prevalence of respiratory infections and diarrhea illnesses.

The sample size for each province (28 provinces and Tehran as the capital city) was set at 2000 urban and 2000 rural households. The actual number of households eventually accessed was 113,957 including 537,108 persons. 173,707 cases were 0- 3 years. The sampling method was single-stage cluster sampling (cluster of equal size). Each cluster consists of 10 ordinary residential households. The basis for weighted adjustments was the ratio of urban to rural residential households in a given province, based on 1996 census data. Ministry of Health and medical education with collaborations of Iran statistics center, civil registration organization, UNFPA and UNICEF, did DHS.

Even though in most of the stages of this survey, other organizations were involved as external monitors and quality controllers, implementing revisions as required, what confirms the scientific accuracy of the data **o**btained is their internal and external consistency; the latter being achieved with respect to the results of similar studies as well as the 1996 General Population and Household Census" [6].

2. National health and disease survey 1999[7].

"The population sample of health survey consisted of one thousandth of the total Iranian population (according to the latest census figures, the population of Iran was 60 million). Cluster sampling randomly selected them. Each cluster consisted of eight families that were visited on a single day by a team of four persons (two physicians, one interviewer and laboratory technician). Data derived from medical history, physical examination and laboratory findings were recorded. The urban and rural population sample comprised 1,097 clusters (8,776 families) and 509 clusters (4,719 families), respectively. A total of 61,137 subjects including 22,271 0-13 years, were interviewed. Laboratory studies were carried out for 84.6% of the total population studied. Para clinical tests were performed in the laboratories of each province. Those included hemoglobin and hematocrit levels, MCV, HBs Ag and Stool examination.

Six different questionnaires were completed. Questionnaire No.1 contained general information about the cluster, No.2 contained information about the standard of hygiene in the household, and No.3 was about the foodstuff ingested by the family within the last 48 hours. Questionnaire 4 was comprised of three parts: Part 1 contained questions about hygienic conditions, medical history and general physical state. Part 2 assessed the level of psychological health and included seven questions about somatization, seven about anxiety state, seven about social dysfunction and seven about depression. Questionnaire No.5 contained information about the clinical findings detected by the examining physicians. Questionnaire No.6 contained information about the results of blood and stool examination."

3. National statistical yearbook 2,000 and other health reports[6].

A comparison study between male and female children from 0-13 years old wasperformed. Variables include: average number of female live births to males, mortality rates of neonatal, infancy and under 5 years period, nutrition, education and health indicators.

Data analysis was done by SPSS software. P value less than 0.05 was significant.

Results

The number of female births registered, relative to male birth is (534,629: 560,536) or sex ratio is 105 males per 100 females[5,6].

Neonatal mortality rate in 1,000 live births is 14.6±3.5 for female and 21.9±4.6 for male newborns(5). Infant mortality rate for female and male children are 24.4 ± 4.5 and 32.7 ±5.6 in 1,000 live births[5].

Under 5 years mortality ratio is 34.6 for females to 37.6 in males[5].

Last live birth for 15-44 year old mothers is 1.3 for female and 1.4 male[7].

The overall population by sex female to male is (29,540,329: 30,515,159)[6].

Medical care and health indicators including immunization and take care against common diseases in 19,175 subjects 13 years or less[7]. have been presented in Tables 1 and 2.

P value equal or less than 0.05% means significant in this study, however there was no significant difference between male and female sexes but there is slightly unmeaning advantage for female children.

Nutrition:

Breast-feeding in Iran up to 12 months is 91% for boys and 90% in girls.

But continuation of breast feeding up to 24 months are 42% and 34% respectively[7].

11% of under 5 years children are underweight (one in nine children) 11.9% of boys (CI: 10.3-13.8) and 9.7% of girls (CI: 8.1-11.6) are underweight

but it has no meaningful difference[8].

Nevertheless, 15% of Iranian children have stunting. (One out of 7 children at the ages of under 7 years old) but there are no differences between boys and girls.

Education:

Illiteracy rate is 2.7% among female children (6-10 years) compared to 2.1% of male children. 95.5% of boys at the ages of 7 to 14 years old go to school, compared to 91.5% of girls at the same ages[5].

Numbers of classes in non-profitable organizations for boys are 21,879 compared to 13,094 for girls in primary school (1996).

Although female children go to preliminary schools more than male children (93,162 to 92,729) for secondary school boys go to school more than girls (9,239,889 compared to 8,466,150) in 1996[9].

The percentage of dropout students due to family problems is 8.5% for girls compared to 7.3% for boys[5]. 11.1% of boys at the ages of (5-14) years work compared to 8.1% of girl children at the same ages in urban areas and in rural areas (24.5% and 18.4%) respectively[5].

Discussion

Some observers have suggested that excess female mortality sometimes begins before births , and that sex selective abortion has played an important role in reducing the number of female birth relative to male births[1].

In China, the sex ratio at birth has risen from the normal level of 106 in 1980 (106 male births to 100 female births) to 120 in 1997[10]. This pattern is due in part to sex selective abortion, resulting from China's one child policy.

In Iran male to female ratio at birth is 105 to 100 and it is not far from the natural ratio.

Although there is sex-selective abortion in some countries[1]. but reveals 46xx, cells in reports of products of conceptions may be due to maternal cell contamination in 89.7% cases and it does not mean that sex selective abortion has been performed[11].

Neonatal, infant and lower than 5 years mortality rates are higher in boys relative to girls implying considerable advantages for girls.

Because of the biological advantage of being female, male mortality rates are generally higher at every age from zero to the highest age attained[12]. Infant and lower 5 years mortality rates are 66, 94 and 86,112 in regional countries: Bangladesh and Pakistan respectively[13]. In Iran even though the proportion of deaths in children under 5 that occurred between the ages of 1 and 59 months has declined in recent years, very little success has been achieved in reducing neonatal mortality rates, and neonatal deaths now account for more than 50% of all deaths in the under 5 age group. Further reduction in U5M rates will require greater focus on the neonatal age group.

Nutrition and medical care fortunately is the same for girl and boy children but unfortunately one out of 9 children under 5 years suffers from malnutrition and they are underweight[8]. and it is a basic challenge for child health and needs more supervision.

Studies in many parts of the world have shown that girls under 5 are given less to eat than their brothers and are more likely to be malnourished[4]. Based on DHS in regional countries[3,14]. Yemen and Armenia, the percentage of malnourished among children younger than five years, are 51.7 and 13.

In Iran more than 95% of children have been immunized but among eight Asian countries surveyed, levels of immunization range from one-third of children in Pakistan to about three-quarters in the Philippines[13].

Education is another important area of female disadvantage throughout the world, but fortunately in Iran like many other developing countries, females have made progress in the field of education, and families as well as governments almost always invest less in girl's education than boys.

As a result, illiteracy rates for men have fallen faster than those for women; nevertheless, in Iran girls have found their successful ways.

Conclusion

Health and disease indicators, neonatal, infant and mortality ratios show advantages for female children. The health status of children reflects mainly socioeconomic and health services. Although data showed acceptable health standards in this study, and did not reflect significant differences against female children, in order to improve nutritional patterns and health interventions, further studies are required and more information about their social supports and securities in both sexes, male or female children, are still needed. We love both of them and there is no need to draw a clear distinction between sexes.

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Table 1. Some Health indicators in male and female children up to 13 years in about 19,175 subjects in Iran (7)

Health indicators	p value	Girls		Boys	
		%	n: total	%	n: total
Good vision	<0.001*	89.4	8405/9399	92.6	9052/9773
Good hearing	0.053	97.6	9179/9400	97.4	9523/9775
Don't have disabilities	0.0359*	98.9	9298/9398	98.6	9633/9769
Disabilities due to Vehicle Accident	0.009*	12.1	12/99	24.3	33/136
Disabilities due to Polio	0.22	3	3/99	1.5	2/136
Don't have mental retardation	0172	98.6	9258/9388	98.4	9602/9760
Asthma	0.001*	0.8	78/9394	1.3	129/9771
Chronic cough	0.001*	0.6	66/9388	0.6	73/9751
Wheezing	0.002*	1.9	177/9394	2.5	243/9771
Epilepsy or convulsion	0.005*	2.3	213/9394	2.9	279/9771
Otitis	0.009*	2.3	217/9259	2.9	279/9629
Psychosis	0.007*	0.1	5/9245	0.2	19/9627
Don't have Anemia	0.003*	85.7	6622/7728	84.1	6742/8012
Positive HBSAG	0.001*	0.8	57/7575	0.8	65/7842
Normal skeletal stature	0.0018*	99.3	9216/9280	99.6	9606/9644
Having Impetigo	0.135	0.4	39/9285	0.5	51/9649

Table 2. Some health indicators in male and female children up to 13 years in mass evaluation.

Health indicators	Males	Females
Infants immunized with BCG vaccine	96.5	97.2
Infants immunized with OPV	96.7	97.3
Incidence of diarrhea in children under 5 years of age	10.4	12.3
Infants immunized with Measles	96.1	96.8
Children under 5 years of age not insured	63.7	62.8
Children under 1 year have Identity card	84.1	85.1

P value equal or less than 0.05% means significant in this study, however there was no significant difference between male and female sexes but there is slightly unmeaning advantage for female children.

Note to authors and readers - Indexing of articles

MEJFM, ME-JAA, MEJN and ME-JIM abstracts will be indexed in several databases, including the new IMI (International Independent Medical Index) as from June 1, 2009.

Abstracts will be searchable by author, name of article and keyword search.

Links to the IMI will be made available from the online journal pages.

We hope this development will assist our authors in providing further access to your research, comments and clinical studies which are so valuable in the advancement of medical practice in the region, and in bringing your work to the attention of the world.

Having reviewed every single paper we have published, I am personally proud of the dedication, scientific endeavour and professionalism of our authors and together we have raised the bar of regional and international medicine.

If you have any questions, feel free to contact me at the following email address:

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Publisher

Turning A Poster into A Scientific Paper for Publication

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Guidelines, development and impact of a poster

GUIDELINES, DEVELOPMENT AND IMPACT OF A POSTER

Scientific posters are an effective oral communication tool for demonstration, and explanation as they serve a short way of verbal presentation combined with visual aid. They should provide the important components in terms of content, and the way it is constructed to influence the overall effectiveness. They should be visually attractive and easy to read and convey meaning within a few minutes, plus they should be short and simple. Posters should stand alone, as people have only a few minutes to view and read it.

Posters are composed usually of the following sections; title, author and affiliations, abstract, introduction, methods, data and results, discussion, conclusion and future work, and lastly reference and acknowledgments. Some consider posters as a structured abstract, and omit abstracts and references. They are used mostly in meetings or conferences as they are limited in time and range of view, plus they are informal and an interactive means of presenting a statistical analysis, program evaluation and so on (Miller JE 2007). Each poster has its own unique format of content and layout for exhibition (see Table-2). They can be presented with two or three key bullet findings to explain the content in a simplified manner. Poster presentations are an ideal formatto publish research findings and clinical innovations (Thomas C E. and Philip E B., 2007, Halligan P., 2008).

The key to successful poster presentation is meticulous, timely, well informed preparation (Hardicre J, Devitt P, Coad J., 2007). Therefore it is very important to consider the poster content and layout (Miller JE., 2007). Complicated statistical results should be translated into simplified tables, graphs and figures, bulleted text which can stand out clearly, to convey piece of information, and the relationships of these components to each other (Durbin CG Jr., 2004, Miller JE., 2007). Always try to keep well-prepared hand-outs which can assist excellent public relations as you cannot cover every single detail in the poster.

Finally, a clear poster presentation can be a useful mode of interactive approach, to share and exchange the results of your research with peers, as well as receiving feedback which can be valuable to improve your research and prepare a paper for publication in a peer reviewed journal (Shelledy DC., 2004, Keely BR., 2004). Drawing on an academic paper from a poster is another way of presenting a scientific paper research framework for publication. The core issue (scientific question) should be identified and reviewed by collecting and evaluating information, and that would involve a thorough literature review, after which information would be drawn together into guidelines accordingly (Mayberry JF., 2007).

The art of developing your schema for publication strategy

It is a very basic function to develop your own plans and a strategy, in order to carry out the work, and write up the ideas. Thoughts should be organised and main ideas should be summarised and jotted down.

The amount of materials presented in a paper far prevail over what is presented in a poster, as a poster requires a distillingof the work without losing the actual meaning of it (conveying the message); posters need to be viewed from a distance of about 6 feet (see Table-2).

Ensure and implement that you follow the journal author guidelines closely before embarking on any writing up, to improve the chances of acceptance of your paper for publication (see Table-1), because publication is the hardest currency of any science. Many times projects are not accepted because they are either too small or too local, andtherefiore have limited value. Set up a timetable for writing and submitting them in due time (Table-1).

Table 1 Plot for writing a paper
choose a journal.
Track authors guidelines.
Set up a time limit to get the work finished.
Construct subheadings.

Starting up

Writing up is often a daunting task; it involves a great deal of planning, preparation and time; it is simply a skill born from practice. In order to write, you need to read.

This piece of writing shall provide the researcher with a few simple guidelines on how to turn a poster into a scientific paper for publication; it ranges from early drafting in order to improve the manuscript, to its final publication (Andrei V.Alexandrov, 2004).

This should involve: what scientific question was raised, how it was investigated and how the question was answered. This must involve a process of what was the asked question and why was it asked, (introduction, background and hypothesis devised), how was the study conducted (methodology), and what were the results, and what do they mean (results and discussion) (Manterola C, Pineda V, Vial M, Grande L., 2007). Before starting writing up, look to the literature for similar resources dealing with your topic, also discuss the topic with the mentor for advice, and guidance (Andrei V.Alexandrov, 2004). Good writing should avoid lengthy and complex words; on the contrary it should involve use of simple terms; in a direct order with its objectivesand then report such with a good discussion (Nahas FX, Ferreira LM, 2005). Show early drafts to colleagues for critique and refining, and if English is not your first language show it to native English speaker who

can improve the text and rephrase wording.

To accomplish the publication of the desired paper, it should fulfil all the required criteria and should follow author journal requirements (Adams AB, Simonson D., 2004). Any journal publication involves three main factors; authors, reviewers, and the editors. The last two are mandatory for any publication to be processed (Figure-1). Some key points which might contribute to publication rejection are either that the author does not know how to start, and what to include and where (Kliewer MA, 2006).

Foundation of a scientific paper

(see accompanying figure-1)

Any scientific paper, to be available for reading and dissemination, has to be published first. Writing, editing and publishing a paper is the last step in the research process. A paper will tell the whole process from the start and pass through data collection and statistical analysis stages, and then present the results with a good discussion and arguments (Branson RD., 2004). It is analogous to the research process. The essential sections and features of a scientific paper are IMRAD structure which is preceded by an Abstract and followed by References;

1. Title- should be concise and represent your main message, as it is the actual shop window where you sell your research. Include author name, highest academic degree, affiliations, email address, phone number and funding if any.
2. Abstract- main reasons for the study, results and conclusions. Abstract means to extract and summarize, and should be written at thestart.
3. Introduction- why the problem has been explored, and what you hope to prove and accomplish.
4. Materials & Methods- how to solve the raised problem by setting up your criteria, such as selecting study subjects, type of study, inclusion and exclusion criteria, and approval of ethics committee if it is an experimental study, after having the signed informed consent. If equipment was used it should be described in detail from all aspects, such as calibration and validation.
5. Results- what was achieved? This is the heart of any article for publication, which would support or refute any proposed theory (Brian F McCabe, 2004).
6. Discussion and conclusion- explain the result, if it is significant. This is the challenging part of any paper (Hess DR, 2004).
7. Acknowledgements- who was involved.
8. References- Cite references throughout the paper. Refer to reference guidelines for targeted journals to meet the anticipated criteria of submission.
9. Tables- extra information.
10. Figures- extra information.

Conclusion

Effective posters should be designed with two or three bullet points with brief description. Typical poster presentation follows the same format as a scientific paper with some minor variations.

It is mandatory to follow any journal instructions after putting up all gained results into a simplified and comprehensive manner, to prove your point; and what you believe you have added to the literature, if it is in fact conceptualisation, and if further work is advocated.

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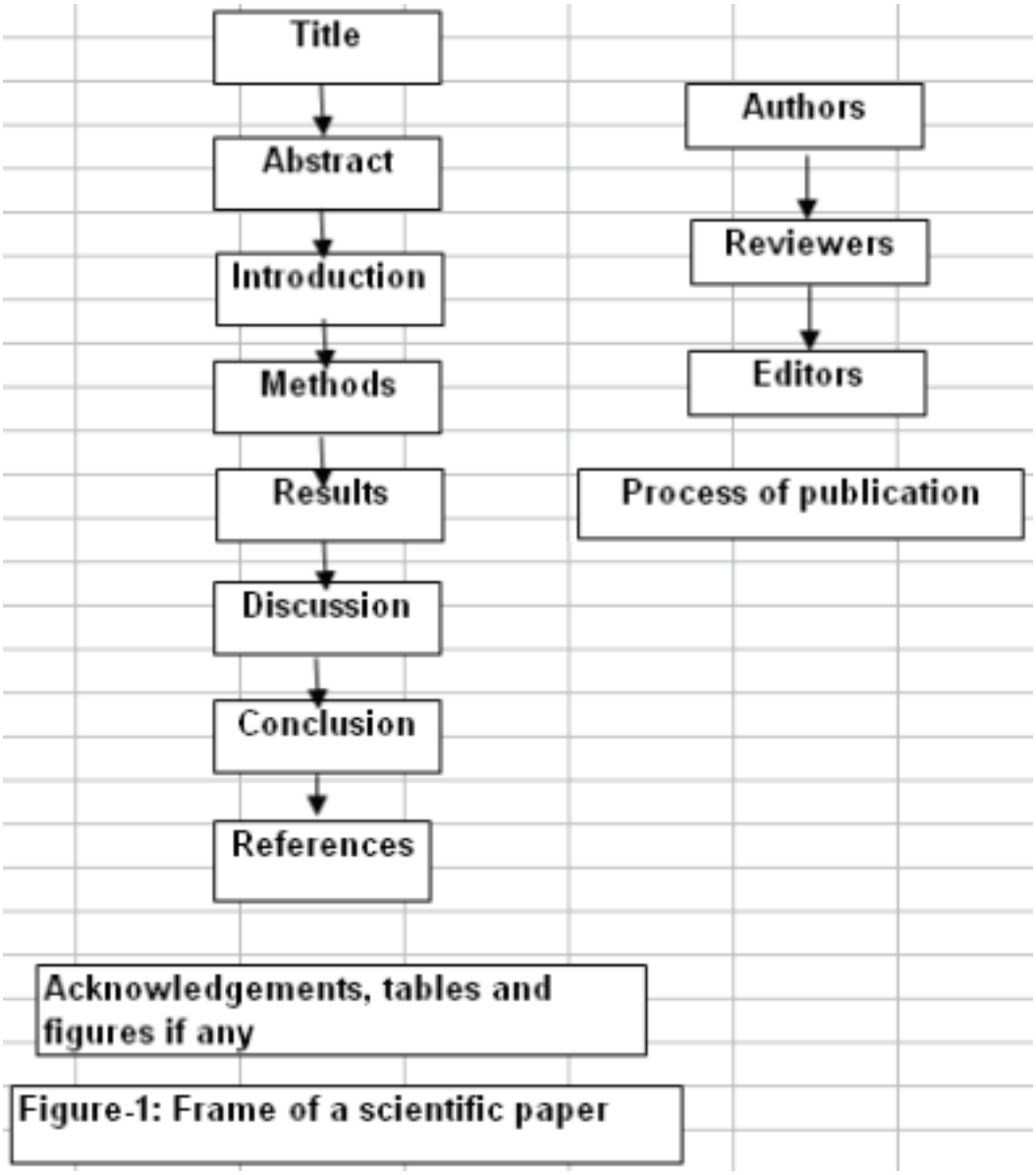

Figure-1: Frame of a scientific paper

Table-2: Main difference between posters and papers

Poster	**Paper**
Rich and personal	Dry and impersonal
Visual presentation (text should support the graphics); 20-25% text, 40-45% graphics and 30-40% empty space	Not a must
Relaxed informal setting	Tense formal session
Interactive with dialogue approach	Lecturing
Efficient and effective education tool	
Sequencing contents from one brief frame to another in a logical fashion from beginning to end, by means of columns, arrows, or numbers,...etc.	Linear by virtue of one page following another
Visual from a distance of 6 feet (relay on graphics)	Relay on virtual verbal and writing
Should be eye-catching, and read at eye level	
Size 24 point font	12-16
N/A	Amount of material far outweighs
Needs more space	N/A
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Do not include Abstract and References as a poster paper is an abstract, therefore does not need to be abstracted	IMRAD structure
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A Rare Case of Type 1B Pseudohypoparathyroidism complicated by Hypocalcemic Dilated Cardiomyopathy - Case Discussion and Review of the Literature

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ABSTRACT

A number of endocrine disorders show the symptoms of cardiac failure. Hypocalcemic dilated cardiomyopathy secondary to hypoparathyroidism is a well known, albeit rare, cause of heart failure. We are presenting here a case of type 1b pseudohypoparathyroidism in a 14 -year old girl complicated by severe congestive heart failure induced by severe chronic hypocalcemia. Although the patient showed a significant clinical improvement after calcium supplementation, her follow up echocardiograms showed no such improvement.

Key words: Pseudohypoparathyroidism, hypocalcemia, heart failure.

Introduction

Pseudohypoparathyroidism is a heritable disorder of target organ unresponsiveness to parathyroid hormone (PTH). This unresponsiveness to PTH results in clinically significant hypocalcemia. Calcium is required for myocardial and myofibrillar contractile function. Moreover; parathormone has a positive inotropic action on the heart. This effect is probably because parathormone increases the entry of calcium into myocardial cells and the release of endogenous myocardial norepinephrine[1]. Thus, hypoparathyroidism with or without hypocalcemia may result in severe heart failure resistant to the usual antifailure treatment.

In several case reports, chronic undiagnosed hypocalcemia due to hypoparathyroidism resulted in severe heart failure or dilated cardiomyopathy[2]. As mentioned above, clinical and hemodynamic improvement could not be achieved with the usual antifailure therapy unless serum calcium deficiency was corrected.

Case Report

A 14 year old girl presented to the medical outpatient department with gradual progressive shortness of breath, orthopnea and nocturnal dyspnea. She had normal perinatal history and developmental milestones. Her menarche was not yet started by the time of presentation. She had no history suggestive of previous attack of rheumatic fever. She was noted to have severe respiratory distress, congested neck veins, S3 gallop with no murmurs. She had bilateral basal late inspiratory crepitations and mild bilateral lower limb edema. She lacked secondary sexual characteristics. Her chest X-ray showed an enlargement of the cardiac silhouette with evidence of heart failure. The initial laboratory investigation revealed severe hypocalcaemia (1.6 mmol/l) , Hyperphosphatemia (2.4 mmol/l) with normal renal function tests. She had hypocalciuria (24 hrs urinary calcium was 0.18 mmol/ 24 hrs (normal range 2.50 - 7.50 mmol/ 24 hrs), hypophosphaturia (24 hrs urinary phosphorus was 4.12 mmol/ 24 hrs (normal range 12.90 - 42.00 mmol/ 24 hrs) and a high PTH concentration (50.50 pmol/l) (normal range 1.6 - 9.3 pmol/l).

The echocardiographic study showed a globally dilated heart with a severely depressed left ventricular ejection fraction (LVEF) of 10 - 15 %. The picture was that of dilated cardiomyopathy.

A low serum calcium associated with hyperphosphatemia, hypocalciuria, hypophosphaturia and a high parathormone concentration provided the diagnosis of a rare form of hypocalcemia, namely pseudohypoparathyroidism.
She lacked the phenotypic abnormalities of Albright's hereditary osteodystrophy (AHO) or type 1a pseudohypoparathyroidism. The absence of any past history

suggestive of any form of coronary artery disease and the lack of findings on echocardiography of any features of congenital or acquired valvular heart disease lead to the diagnosis of dilated cardiomyopathy secondary to hepocalcemia and pseudohypoparathyroidism.

She was started on calcium supplementation in addition to antifailure measures. This was followed by rapid clinical improvement. The patient did well clinically (objectively and subjectively) with restoration of normocalcemia although her follow up echo after 8 months showed the same features as before.

Discussion

Pseudohypoparathyroidism (PHP) is a heterogeneous group of disorders characterized by target organs (kidney and bone) unresponsiveness to PTH, resulting in hypocalcemia, hyperphosphatemia, increased serum concentration of PTH, and insensitivity to the biological activity of PTH.

Patients with the type 1b disease have their PTH resistance confined to the kidney and they lack the phenotypic abnormalities of type 1a disease, Albright's hereditary osteodystrophy (AHO)[3].

Hypocalcemic cardiomyopathy due to pseudohypoparathyroidism is a very rare condition which is usually refractory to conventional treatment for cardiac failure but which responds favorably to restoration of normocalcemia4. Although our patient showed a significant clinical improvement, her follow up echo 8 months following restoration of normo-calcimea was unsatisfactory. However in similar cases of hypocalcemic cardiomyopathy secondary to hypoparathyroidism, complete regression of the clinical signs was achieved with vitamin D and calcium supplementation and antifailure measures, but follow up echo up to 18 months showed persistent left ventricular dilatation and systolic dysfunction[5,6].

Conclusion

Pseudohypoparathyroidism may cause a picture of dilated cardiomyopathy that is characterized by long standing symptoms of depressed myocardial function. This condition can be prolonged and the diagnosis could be delayed for a long time, delaying the initiation of therapy. This is a treatable cause of dilated cardiomyopathy and it should be suspected in the right clinical settings. This clinical suspicion will lead to an early initiation of treatment which is life saving and important to arrest the disability associated with this clinical entity.

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Figure 1: Postero-anterior Chest X-ray showing cardiomegaly with evidence of heart failure.

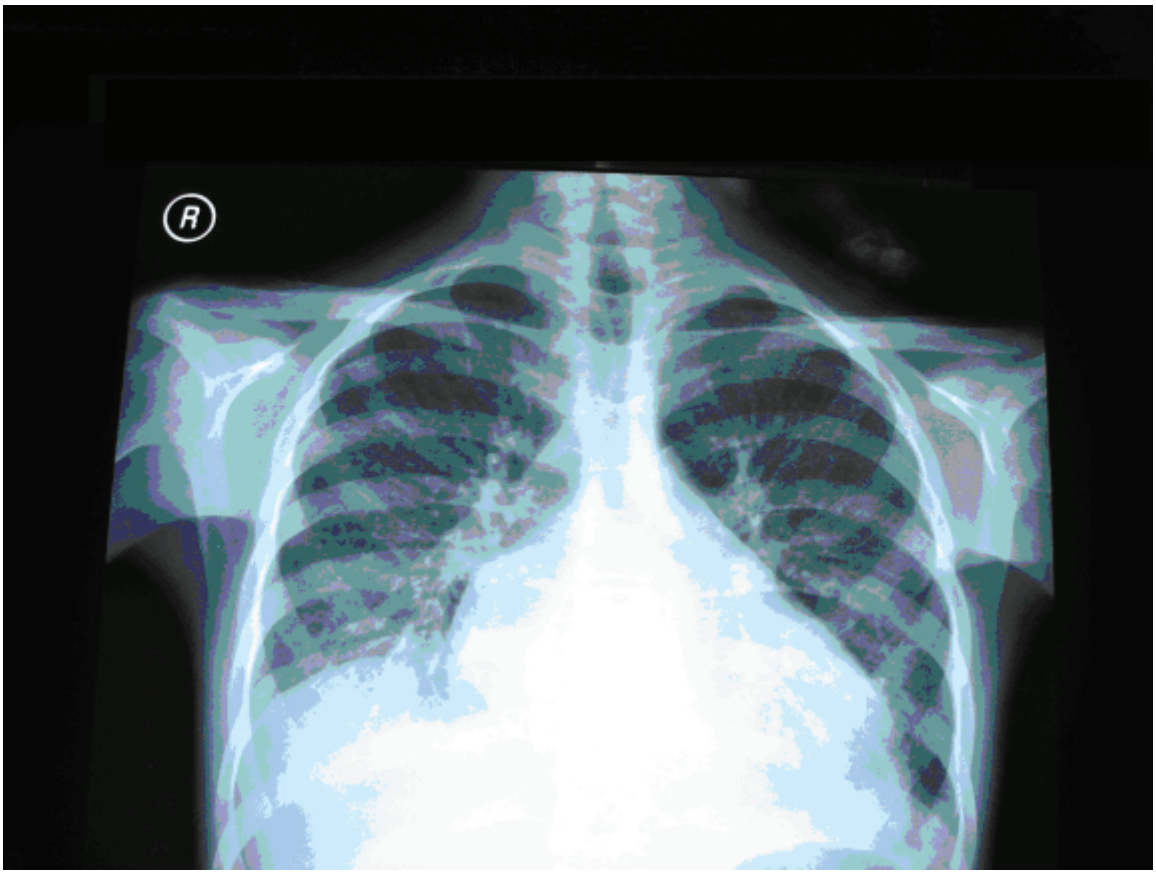

Figure 2: Apical 4 chamber transthoracic echocardiographic view showing gross dilatation of all cardiac chambers.

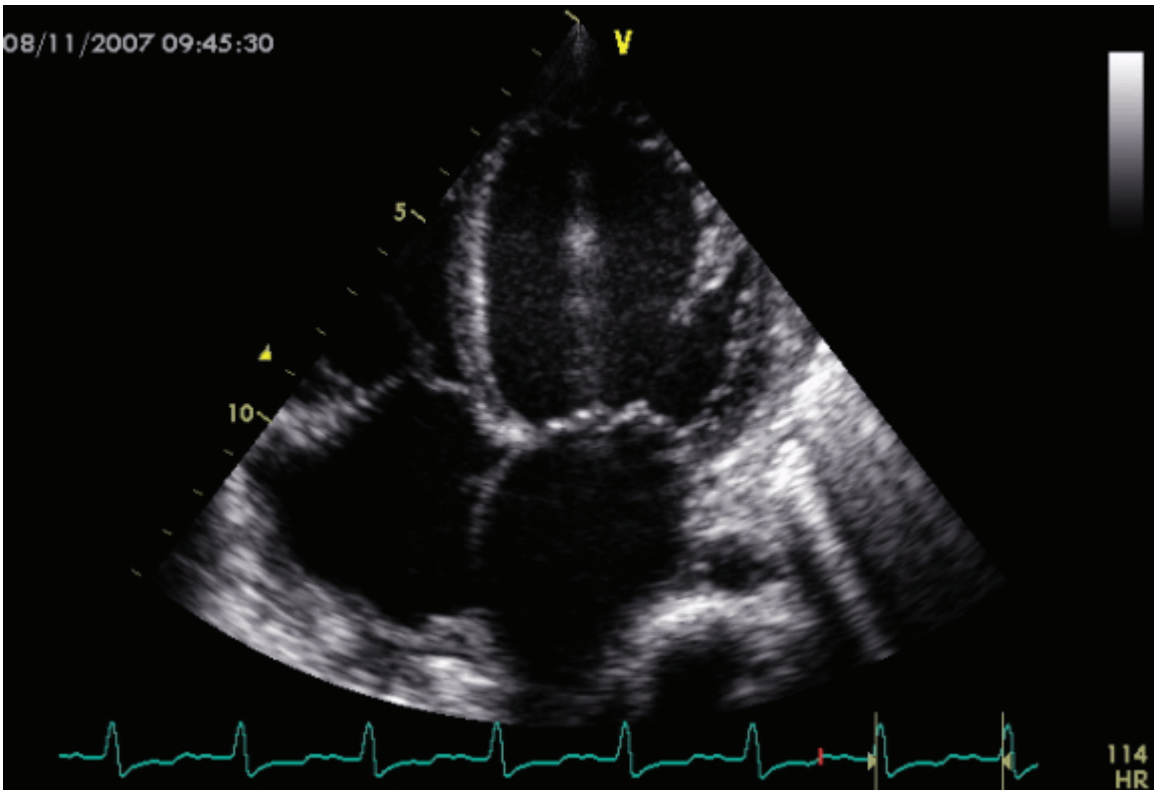

Figure 3: 4-chambers view with an LVEF measurement using the Simpson's method. The obtained LVEF in that view was 13.24%.

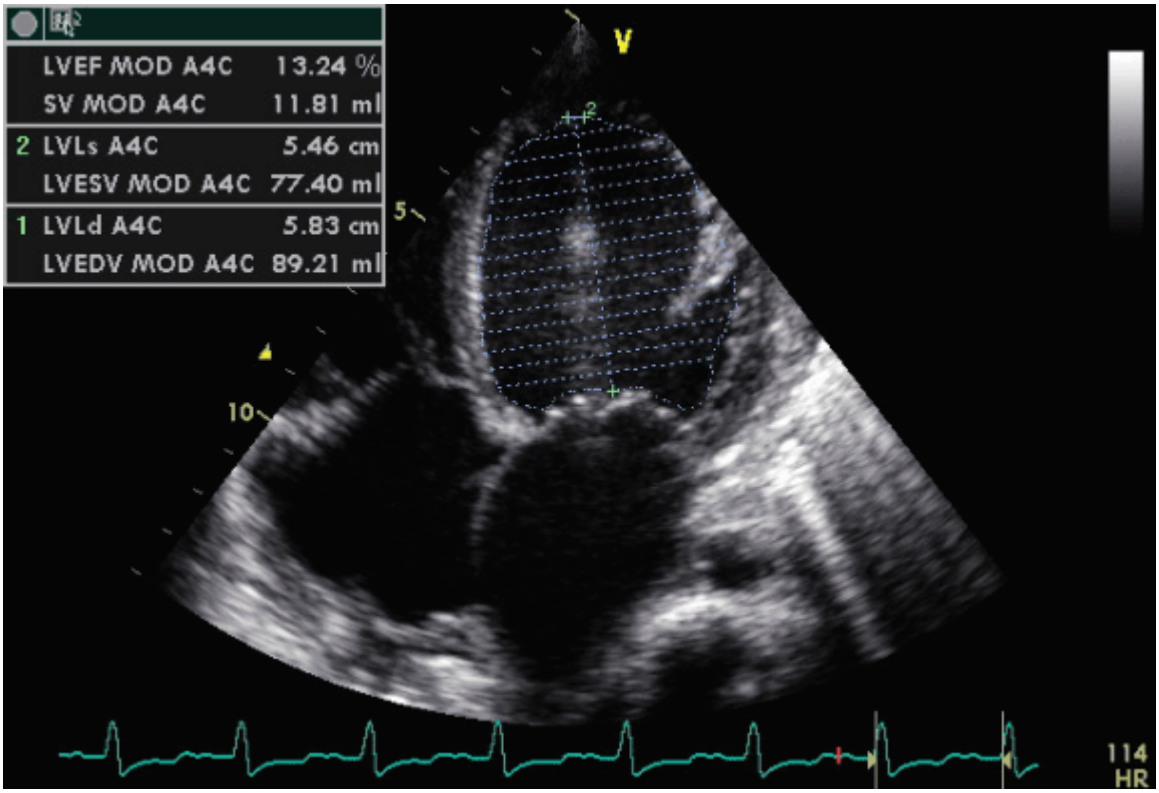

Figure 4: A parasternal long axis echocardiographic view using M-mode and showing a grossly dilated left atrium (LA) of 41 mm.

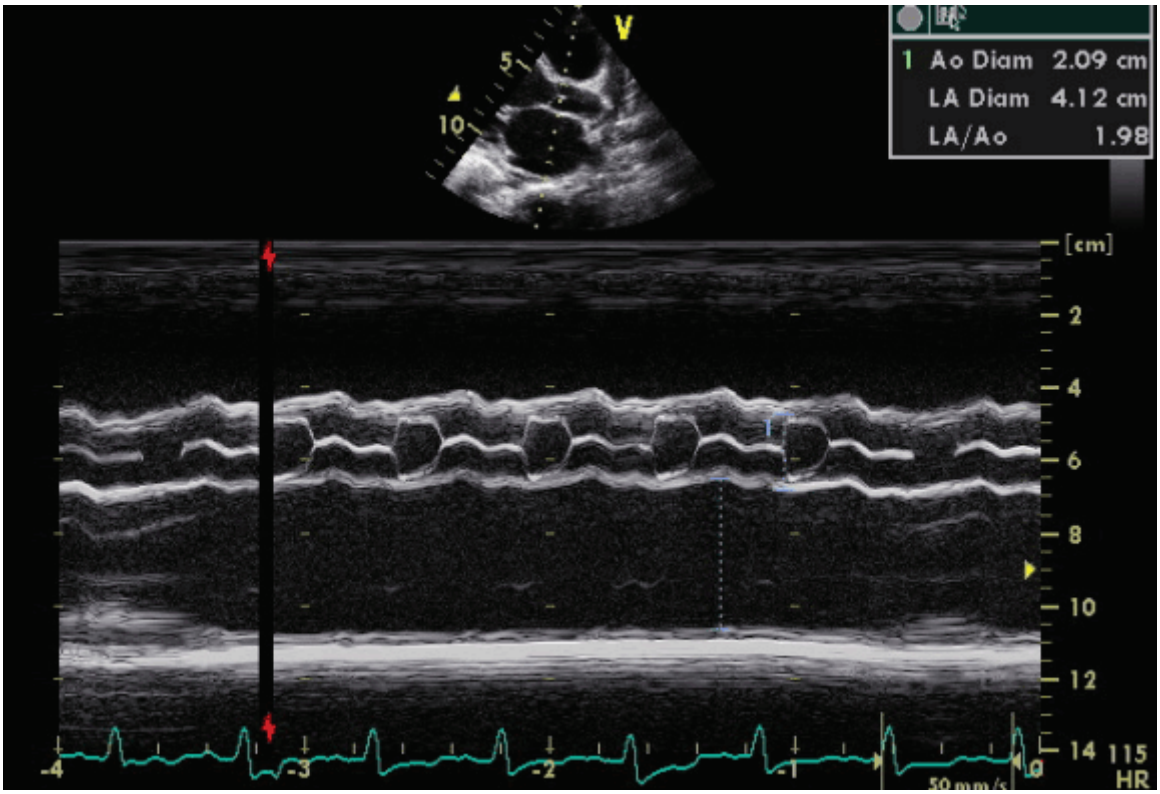

Figure 5: A parasternal long axis echocardiographic view using M-mode and showing a grossly dilated left ventricle with an end diastolic dimension of 61 mm and an end systolic dimension of 58 mm. The fractional shortening was 4.6%.